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CATALOGUE

OF THE

LEPIDOPTERA PHALÆNÆ

IN THE

BRITISH MUSEUM.

VOLUME X.

LONDON:
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1910.

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CATALOGUE

OF THE

NOCTUIDÆ

IN THE

COLLECTION

OF THE

BRITISH MUSEUM.

BY

SIR GEORGE F. HAMPSON, BART.

LONDON:
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PREFACE.

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The subject of Vol. X. of the 'Catalogue of Moths' is the classification of the Noctuid subfamily *Erastrianæ*, represented in the present work by 1222 species belonging to 136 genera. The subfamily is homogeneous in appearance, but is not very well defined structurally, being intermediate in characters between the Trifid and Quadrifid sections of the *Noctuidæ*, and having very close affinities on the one hand with the *Acronyctinæ* and on the other hand with the *Acontianæ*, *Noctuinæ*, and *Hyppeninæ*.

The Erastrianæ are characterised as follows:—Vein 5 of the hind wing is typically nearly fully developed and usually arises from well above the lower angle of the cell, although it is rarely obsolescent and then springs from the middle of the discocellulars; the eyes are not hairy; the tibiæ are not spined; and the larvæ have the first pair or first two pairs of prolegs aborted.

The subfamily is to a large extent confined to the tropical and warmer temperate regions, especially the more arid districts, and it has few species in the colder zones, and none in the Arctic and Alpine zones.

Sir George Hampson has to acknowledge the assistance which he has received, mostly from those whose help has been referred to in earlier volumes of the Catalogue, by the loan of types and other specimens, and in other ways. The coloured drawings which have

been made for him from types which are not in the Collection of the British Museum have been reproduced and are severally acknowledged in the text.

The Plates which will be published early in 1911 in connexion with this volume are numbers 148 to 173, of which Plate 148 and part of Plate 149 refer to Vol. IX. of the Catalogue. Plate 174, part of which relates to Vol. X., will appear with Vol. XI.

SIDNEY F. HARMER,
Keeper of Zoology.

British Museum (Natural History),
November 12th, 1910.

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CATALOGUE

OF

LEPIDOPTERA PHALÆNÆ.

Family NOCTUIDÆ.

Subfamily ERASTRIANÆ.

Proboscis usually fully developed, sometimes aborted or absent; palpi usually upturned, sometimes oblique or porrect, when the 2nd joint is usually fringed with hair above towards extremity; frons often with rounded prominence with corneous plate below it or with corneous processes of various forms; eyes naked, without bristly cilia from their margins, almost always large and round; antennæ usually ciliated, sometimes serrate or pectinated, often laminate and almost simple; thorax usually clothed almost entirely with scales, rarely with hair and hair-like scales or with hair only, usually without crests; tibiæ without spines, the fore tibia rarely with a terminal claw; abdomen usually without crests, sometimes with dorsal series of crests or with crest at base only; size nearly always small or moderate, the build often slender; wings usually short and broad with the termen evenly curved, sometimes long and narrow, the termen of fore wing often excised below apex or towards tornus. Fore wing with vein 1 *a* weak, not anastomosing with 1 *b*, 1 *c* absent; 2 from middle of cell; 3 and 5 from near lower angle, or 3 from well before angle, or rarely 3, 4 stalked; 6 from or from below upper angle; 9 usually from 10 anastomosing with 8 to form the areole, sometimes 9 and 10 anastomosing with 8 to form the areole, or rarely 11 anastomosing with 8 and 10 to form the areole, or 7, 8, 9, 10 and rarely 11 stalked, or 7, 8, 9 stalked, 10 from cell, or 7 from cell and 8, 9, 10 and rarely 11 stalked; 9 and rarely 8 also absent, or 10 rarely anastomosing with 11. Hind wing with veins 1 *a* and 1 *b* present, 1 *c* absent; 3, 4 from angle of cell or often stalked; 5 typically nearly fully developed from well below middle of discocellulars, but in several genera

obsolescent from the middle of discocellulars: 6, 7 from upper angle or stalked: 8 anastomosing with the cell near base only or often anastomosing with the cell to near middle.

In the genera without an areole its absence appears always to have been caused by reduction from forms which once possessed it.

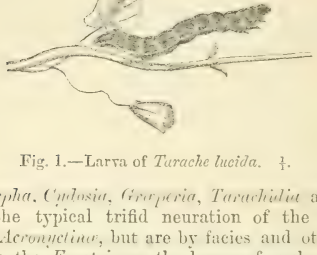

Fig. 1.—Larva of *Turache lucida*. ¼.

Empsedomorpha, *Cydosia*, *Graeperia*, *Tarachidia* and some other genera have the typical trifid neuration of the hind wing of the subfamily *Acronyctinæ*, but are by facies and other characters closely allied to the *Erastrianæ*, the larvæ of such as are known having the anterior prolegs aborted, which is the essential distinction between the two subfamilies.

Larvæ smooth, the warts with single hairs, the anterior or two anterior pairs of prolegs absent, and in method of progression more or less semiloopers.

Key to the Genera.

A. Fore wing with veins 7, 8, 9, 10 stalked, or 9 absent.
  a. Fore wing with vein 11 stalked with 7, 8, 9, 10. ARÆOPTERA, p. 22.
  b. Fore wing with vein 11 from the cell.
    a^1. Frons with rounded prominences; proboscis small; fore wing with vein 9 absent ..... PHŒNICOPHANTA, p. 653.
    b^1. Frons without prominence.
      a^2. Abdomen with dorsal series of crests.
        a^3. Palpi with the 2nd joint bent forward at extremity; the 3rd porrect. RHYNCHODIA, p. 489.
        b^3. Palpi with the 2nd joint not bent forward at extremity.
          a^4. Mesothorax with paired crests, metathorax with spreading crest.
            a^5. Abdomen with large crests on medial segments ..... ERASTROIDES, p. 420.
            b^5. Abdomen with crests on basal segments only ..... DROBETA, p. 332.
          b^4. Thorax without crests.
            a^5. Hind wing with vein 5 nearly fully developed from below middle of discocellulars ..... PEPERITA, p. 202.
            b^5. Hind wing with vein 5 obsolescent from middle of discocellulars.
              a^6. Fore wing with veins 3, 4 shortly stalked ..... PSEUDOCRASPEDIA, p. 260.

b^6. Fore wing with veins 3, 4 from cell.
a^7. Proboscis aborted, small; fore wing with vein 9 absent ..... ARGYROPASTA, p. 482.
b^7. Proboscis fully developed; fore wing with vein 9 present. COPHANTA, p. 562.
b^2. Abdomen with dorsal crest at base only.
a^3. Proboscis aborted, minute ..... STENOCODIA, p. 555.
b^3. Proboscis fully developed.
a^4. Palpi with the 2nd joint reaching to well above vertex of head and bent forward at extremity ..... STEGANIODES, p. 268.
b^4. Palpi with the 2nd joint reaching to vertex of head and not bent forward at extremity ..... HIMEROIS, p. 564.
c^2. Abdomen without crests.
a^3. Proboscis aborted, slight.
a^4. Palpi upturned, slender and smoothly scaled..... ENISPA, p. 40.
b^4. Palpi oblique and fringed with hair above and below ..... EUBLEMMISTIS, p. 35.
c^4. Palpi porrect, the 2nd joint fringed with hair above towards extremity. CAUTELSCHRA, p. 39.
b^3. Proboscis fully developed.
a^4. Metathorax with crest; hind wing with vein 8 anastomosing with the cell to near middle ..... MICROBLEMMA, p. 33.
b^4. Metathorax without crest; hind wing with vein 8 anastomosing with the cell near base only.
a^5. Palpi upturned.
a^6. Fore wing with vein 9 absent. ŒNOPTERA, p. 259.
b^6. Fore wing with vein 9 present.
a^7. Palpi with the 2nd joint reaching to above vertex of head, the 3rd long ..... PSEUDACIDALIA, p. 269.
b^7. Palpi with the 2nd joint reaching to middle of frons, the 3rd moderate ..... NARANGODES, p. 633.
b^5. Palpi obliquely porrect, the 3rd joint short ..... HÆMAPHLEBIA, p. 203.

B. Fore wing with veins 7, 8, 9 stalked or 9 or both 8 and 9 absent, 10 separate.
a. Fore wing with veins 10, 11 stalked.
a^1. Palpi upturned, slender; fore wing with the termen excised below apex ..... METACAUSTA, p. 207.
b^1. Palpi obliquely upturned, the 2nd joint fringed with scales above towards extremity; fore wing with the termen evenly curved ..... LIGIDIA, p. 204.
b. Fore wing with veins 10, 11 from cell.
a^1. Fore tibia with curved claw on outer side at extremity; frons with corneous prominences with raised edges and spine from lower edge ..... ACANTHOFRONTIA, p. 644.
b^1. Fore tibia without claw.
a^2. Frons with large corneous prominence with raised edges, its lower part filled in with scales..... TROGOTORNA, p. 331.

b^2. Frons with large truncate corneous prominence with raised edges and slight central process ..... Procriosis, p. 711.
c^2. Frons with rounded prominence with small corneous process with raised edges at middle ..... Cydosia, p. 10.
d^2. Frons with rounded prominence with corneous plate below it.
a^3. Abdomen with basal crest; hind wing with vein 5 from well below middle of discocellulars..... Glaucicodia, p. 351.
b^3. Abdomen without crests; hind wing with vein 5 obsolescent from middle of discocellulars ..... Heliocontia, p. 662.
e^2. Frons without prominence.
a^3. Abdomen with dorsal crests on 3rd and 4th segments; hind wing with vein 5 obsolescent from middle of discocellulars..... Xanthiographta, p. 563.
b^3. Abdomen with dorsal crests on basal segments only; hind wing with vein 5 from below middle of discocellulars ... Parangitia, p. 335.
c^3. Abdomen with dorsal crest at base only.
a^4. Palpi upturned ..... Hyperstrotia, p. 556.
b^4. Palpi obliquely porrect, the 2nd joint fringed with hair above towards extremity ..... Hypobleta, p. 258.
d^3. Abdomen without crests.
a^4. Hind wing with the costa excised beyond middle.
a^5. Fore wing with vein 9 absent, the termen excised below apex; hind wing with the apex produced and acute ..... Decticryptis, p. 194.
b^5. Fore wing with vein 9 present; termen of both wings evenly curved ..... Holocryptis, p. 195.
b^4. Hind wing with the costa not excised.
a^5. Proboscis aborted, minute..... Naranga, p. 630.
b^5. Proboscis fully developed ..... Toana, p. 205.
C. Fore wing with veins 8, 9, 10, 11 stalked, 7 from cell.
a. Fore wing with the termen angled at vein 4, then oblique; hind wing with the termen strongly excised at discal fold..... Hyriodes, p. 16.
b. Fore wing with the termen evenly curved ... Acidaliodes, p. 17.
D. Fore wing with veins 8 and 10 stalked, 9 absent, 11 anastomosing with them to form a small areole ..... Hæmatosticta, p. 15.
E. Fore wing with veins 8, 9, 10 stalked, or 9 absent, 11 free.
a. Frons with corneous prominence with raised edges and corneous process in centre hollowed out in front ..... Œdicodia, p. 387.
b. Frons with corneous beak-shaped process ... Neochrostis, p. 392.
c. Frons without prominence.
a^1. Abdomen with dorsal series of crests.
a^2. Fore wing with the termen crenulate ... Xanthozona, p. 487.

b^2. Fore wing with the termen not crenulate.
a^3. Hind wing with vein 5 nearly fully developed from well below middle of discocellulars.
a^4. Fore wing with the termen slightly excurved at middle and oblique towards tornus. ..... Cobubatha, p. 314.
b^4. Fore wing with the termen evenly curved ..... Hypercodia, p. 488.
b^3. Hind wing with vein 5 obsolescent from middle of discocellulars ..... Lycaugesia, p. 263.
b^1. Abdomen with dorsal crest at base only ... Ozarba, p. 393.
c^1. Abdomen without crests.
a^2. Proboscis aborted, minute or absent.
a^3. Fore wing with the termen strongly excised below apex and angled at vein 4. Trogoblemma, p. 796.
b^3. Fore wing with the termen evenly curved Micraconcia, p. 61.
b^2. Proboscis fully developed.
a^3. Fore wing with vein 9 absent, 3 and 4 stalked ..... Niaccaba, p. 62.
b^3. Fore wing with vein 9 present, 3 and 4 usually from cell.
a^4. Palpi oblique, the 2nd joint fringed with hair above towards extremity.
a^5. Hind wing with vein 8 anastomosing with the cell to near middle ..... Proroblemma, p. 34.
b^5. Hind wing with vein 8 anastomosing with the cell near base only ..... Catoblemma, p. 36.
b^4. Palpi upturned, the 2nd joint not fringed with hair above.
a^5. Hind wing with vein 5 from well below middle of discocellulars ... Eublemma, p. 63.
b^5. Hind wing with vein 5 from just below middle of discocellulars ... Trissernis, p. 31.

F. Fore wing with veins 8, 9 stalked, 7 and 10 from cell.
a. Frons with truncate prominence with raised edges ..... Xantholeuca, p. 378.
b. Frons with rounded prominence ..... Conocharis, p. 685.
c. Frons without prominence ..... Mimoruza, p. 271.

G. Fore wing with veins 9, 10 anastomosing with 8 to form the areole.
a. Frons with pointed prominence.
a^1. Frons with transverse corneous ridge above the prominence .. .. Trogatha, p. 283.
b^1. Frons without transverse corneous ridge above the prominence..... Cautatha, p. 284.
b. Frons with transverse ridge-line prominence. Metæmene, p. 801.
c. Frons without prominence.
a^1. Abdomen with dorsal series of crests ..... Micrantha, p. 483.
b^1. Abdomen with dorsal crest at base only ... Metasada, p. 257.
c^1. Abdomen without crests.
a^2. Palpi oblique, the 2nd joint fringed with hair above, the 3rd porrect.
a^3. Palpi with the 3rd joint moderate, porrect ..... Phlœozona, p. 200.
b^3. Palpi with the 3rd joint minute, buried in the hair of 2nd joint ..... Carmara, p. 233.
b^2. Palpi upturned, the 2nd joint not fringed with hair above.
a^3. Hind wing with veins 3, 4 stalked ..... Arasada, p. 254.
b^3. Hind wing with veins 3, 4 from cell ..... Parorusa, p. 272.

H. Fore wing with veins 9 from 10 anastomosing with 8 to form the areole, abnormally with veins 8, 9 separate from the areole.
a. Fore wing with vein 10 anastomosing with 11. — Microphæa, p. 329.
b. Fore wing with vein 10 not anastomosing with 11.
a^1. Fore tibia with curved claw at extremity.
a^2. Frons with corneous prominence with raised edges and central process.
a^3. Fore tibia with the claw on outer side; hind wing with vein 5 from middle of discocellulars ..... — Ceratocsia, p. 642.
b^3. Fore tibia with the claw on inner side; hind wing with vein 5 from below middle of discocellulars ..... — Chelichares, p. 718.
b^2. Frons with corneous prominence with raised edges, its lower edge produced to a beak ..... — Stenostygia, p. 571.
c^2. Frons with the corneous prominence not produced to a beak below ..... — Gyrohypsoma, p. 641.
b^1. Fore tibia without claw.
a^2. Frons with corneous plate at middle.
a^3. Frons with the corneous plate trilobate . — Eupseudomorpha, p. 9.
b^3. Frons with the corneous plate not trilobate.
a^4. Hind wing with vein 5 nearly fully developed from well below middle of discocellulars ..... — Metapioplasta, p. 719.
b^4. Hind wing with vein 5 obsolescent from middle of discocellulars ..... — Græperia, p. 675.
b^2. Frons with corneous prominence with raised edges.
a^3. Frons with small process in middle of prominence.
a^4. Abdomen with dorsal crest at base ..... — Protarache, p. 373.
b^4. Abdomen without crests.
a^5. Hind wing with vein 5 well developed from below middle of discocellulars . — Hoplotarache, p. 712.
b^5. Hind wing with vein 5 obsolescent from middle of discocellulars ..... — Scotostena, p. 372.
b^3. Frons with the prominence heart-shaped, its lower edge produced to a point..... — Cardiosaca, p. 706.
c^3. Frons without processes to the prominence.
a^4. Frons with the prominence forming a transverse groove.
a^5. Proboscis aborted, small; frons without corneous plate below it ..... — Uncula, p. 375.
b^5. Proboscis fully developed; frons with corneous plate below it .... — Aulotarache, p. 722.
b^4. Frons with the prominence rounded.
a^5. Abdomen with dorsal series of crests... — Ortholeuca, p. 486.
b^5. Abdomen with dorsal crest at base only ..... — Hiccoda, p. 379.
c^5. Abdomen without crests.
a^6. Hind wing with vein 5 from above angle of cell; 3, 4 from angle.
a^7. Proboscis aborted, minute ..... — Menoptera, p. 640.
b^7. Proboscis fully developed ..... — Mictocheoa, p. 375.
b^6. Hind wing with vein 5 obsolescent from middle of discocellulars, 3, 4 stalked .... — Feuva, p. 681.

c^2. Frons with conical prominence.
a^3. Prothorax with oblique flattened crest ... Stenoloba, p. 366.
b^3. Prothorax without crest.
a^4. Palpi with the 2nd joint fringed with hair above towards extremity ..... Perynea, p. 201.
b^4. Palpi with the 2nd joint not fringed with hair above towards extremity.
a^5. Frons with rather truncate prominence. Conacontia, p. 702.
b^5. Frons with acutely pointed prominence.
a^6. Hind wing with veins 3, 4 stalked ... Stylorache, p. 701.
b^6. Hind wing with veins 3, 4 from cell.
a^7. Thorax smoothly clothed with scales Thyatirina, p. 650.
b^7. Thorax clothed with rough hair and spatulate scales ..... Exyra, p. 651.
d^2. Frons with rounded prominence.
a^3. Abdomen with dorsal series of crests.
a^4. Abdomen with large dorsal crests on terminal segments ..... Chlorocodia, p. 350.
b^4. Abdomen without crests on terminal segments.
a^5. Abdomen with large crests on 3rd and 4th segments; fore wing without scale-tooth on inner margin towards tornus..... Bryocodia, p. 476.
b^5. Abdomen with large crest on 3rd segment; fore wing with scale-tooth on inner margin towards tornus..... Œoerastria, p. 485.
b^3. Abdomen with dorsal crest at base only.
a^4. Fore wing with the termen excurved at middle and oblique towards tornus. Paracodia, p. 352.
b^4. Fore wing with the termen evenly curved.
a^5. Palpi upturned, the 2nd joint reaching to vertex of head.
a^6. Fore wing broad, the apex rounded, the termen slightly crenulate ..... Diastema, p. 645.
b^6. Fore wing narrow, the apex somewhat produced, the termen not crenulate ..... Chobata, p. 647.
b^5. Palpi oblique, the 2nd joint reaching about to middle of frons.
a^6. Metathorax with decumbent crest ... Lophorache, p. 648.
b^6. Metathorax without crest ..... Phyllophila, p. 382.
c^3. Abdomen without crests.
a^4. Hind wing with vein 5 nearly fully developed from well below middle of discocellulars.
a^5. Eyes small, elliptical ..... Trichotarache, p. 705.
b^5. Eyes large, round.
a^6. Frons with slight ridge across the prominence.
a^7. Palpi upturned..... Xanthoptera, p. 654.
b^7. Palpi porrect ..... Erastria, p. 658.
b^6. Frons without ridge across the prominence, which is sometimes slightly roughened at middle.
a^7. Palpi upturned..... Cretonia, p. 388.
b^7. Palpi porrect..... Tarache, p. 723.
b^4. Hind wing with vein 5 almost obsolete from middle of discocellulars.
a^5. Frontal prominence and plate well developed, the former with slight raised rim at extremity ..... Tarachidia, p. 686.

b^5. Frontal prominence and plate very small, the former smooth ..... Spragueia, p. 669.
c^2. Frons without prominence.
a^3. Abdomen with dorsal series of crests.
a^4. Proboscis aborted, minute..... Argillophora, p. 481.
b^4. Proboscis fully developed.
a^5. Prothorax with spreading crest ..... Chlorhoda, p. 479.
b^5. Prothorax without crest.
a^6. Mesothorax with slight paired crests, metathorax with spreading crest.
a^7. Abdomen with dorsal crests on terminal segments and very large crest on 4th segment ..... Chamyris, p. 480.
b^7. Abdomen without crests on terminal segments.
a^8. Abdomen with large crests on 3rd and 4th segments ..... Lithacodia, p. 497.
b^8. Abdomen with large crest on 2nd segment and smaller crests on 1st, 3rd and 4th segments ..... Melamera, p. 327.
c^8. Abdomen with crests on basal segment only ..... Angitia, p. 342.
c^6. Thorax without crests.
a^6. Abdomen with dorsal crests on terminal segments ..... Lophoruza, p. 225.
b^6. Abdomen with dorsal crests on basal segments only ..... Amyna, p. 459.
b^3. Abdomen with dorsal crest on basal segment only.
a^4. Prothorax with spreading crest ..... Farara, p. 224.
b^4. Prothorax without crest.
a^5. Palpi upturned.
a^6. Hind wing with vein 4 absent ..... Ptyoptera, p. 809.
b^6. Hind wing with vein 4 present ..... Eustrotia, p. 566.
b^5. Palpi porrect..... Taseopteryx, p. 330.
c^3. Abdomen without crests.
a^4. Hind wing with vein 4 absent, coincident with 3 ..... Stenoracha, p. 612.
b^4. Hind wing with vein 4 present.
a^5. Hind wing with vein 8 anastomosing with the cell to beyond middle.
a^6. Palpi upturned; fore wing with the apex rounded..... Pseudomicrodes, p. 613.
b^6. Palpi porrect; fore wing with the apex produced and acute ..... Pseudosteria, p. 640.
b^5. Hind wing with vein 8 anastomosing with the cell near base only.
a^6. Palpi upturned.
a^7 Metathorax with depressed crest.
a^8. Fore wing with the apex produced, vein 10 approximated to 8, 9 beyond the areole ..... Monocymia, p. 644.
b^8. Fore wing with the apex not produced..... Eulocastra, p. 618.
b^7. Metathorax without crest.
a^8. Fore wing with the termen excised below apex and excurved at middle. Gonophæa, p. 362.
b^8. Fore wing with the termen evenly curved
a^9. Proboscis aborted, minute.

a^{10}. Palpi with the 2nd joint reaching to vertex of head, the 3rd moderate ..... Bostrodes, p. 280.
b^{10}. Palpi with the 2nd joint reaching to middle of frons, the 3rd minute ..... Chalenata, p. 363.
b^{9}. Proboscis fully developed.
a^{10}. Palpi with the 2nd joint fringed with hair behind towards extremity ..... Cerynea, p. 209.
b^{10}. Palpi with the 2nd joint not fringed with hair behind towards extremity.
a^{11}. Fore wing with the apex produced and acute.
a^{12}. Palpi with the 3rd joint well developed..... Oruza, p. 234.
b^{12}. Palpi with the 3rd joint minute ..... Hyposada, p. 272.
b^{11}. Fore wing with the apex rounded.
a^{12}. Palpi with the 2nd joint reaching to vertex of head... Mimasura, p. 634.
b^{12}. Palpi obliquely upturned, the 2nd joint reaching to middle of frons ..... Flammona, p. 638.
b^{6}. Palpi porrect.
a^{7}. Palpi with the 2nd joint fringed with hair above towards extremity.
a^{8}. Proboscis aborted, minute.
a^{9}. Palpi with the 2nd joint fringed with hair above and below; frons without tuft of hair ..... Parasada, p. 281.
b^{9}. Palpi with the 2nd joint fringed with hair above only towards extremity; frons with tuft of hair above ..... Epigrypera, p. 282.
b^{8}. Proboscis fully developed.
a^{9}. Fore wing with vein 3 from close to angle of cell.
a^{10}. Fore wing with the termen excurved at middle; hind wing with the termen slightly angled at veins 7 and 8 ..... Ectrogatha, p. 285.
b^{10}. Both wings with the termen evenly curved ..... Abacena, p. 328.
b^{9}. Fore wing with vein 3 from well before angle of cell ..... Corgatha, p. 286.
b^{7}. Palpi with the 2nd joint not fringed with hair above ..... Eugraphia, p. 792.

Genus **EUPSEUDOMORPHA.**

Edwardsia, Neum. Can. Ent. xii. p. 67 (1880); nec Quatr. Pol. 1842..... Type.
Eupseudomorpha, Dyar, Can. Ent. xxv. p. 28 (1893)..... [illegible]

Head small; proboscis fully developed; palpi porrect, extending about the length of head and fringed with hair below; frons with trilobate process from middle, the medial lobe longest; eyes large, round; antennæ of female bipectinate, serrate at apex; thorax clothed with hair, the tibiæ with tufts of hair;

abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 becoming coincident with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

*4987. Eupseudomorpha brillians.

Edwardsia brillians, Neum. Can. Ent. xii. p. 68 (1880); Dyar, Cat. Lep. N. Am. p. 194.

♀. Head black, the palpi at base and lines round eyes white; thorax black with dorsal and subdorsal white streaks; femora with tufts of orange hair and orange bands, tibiæ with some orange scales; abdomen black with the dorsal crest and anal tuft dark orange. Fore wing black, a short white fascia below costa towards base, a wedge-shaped patch below basal half of cell, an oblique patch below middle of cell and a streak above medial part of inner margin; a semicircular orange spot in middle of cell and a bar-shaped mark on discocellulars, its extremities rather dilated on

Fig. 2.—*Eupseudomorpha brillians*, ♀. ½.

outer side, with a triangular white patch between them; a white band beyond the cell from below costa to vein 2, its inner edge sinuous; a white postmedial band excurved from just below costa to vein 2 where it is angled inwards, ending at vein 1; a subterminal fulvous orange band with whitish outer edge from below costa to vein 1, expanding on inner side below vein 2; cilia white at tips. Hind wing fuscous black with a bronze tinge; faint traces of a discoidal orange spot and subterminal band. Underside of fore wing with triangular orange spot in cell; a medial band from costa to below median nervure and subterminal band.

Hab. U.S.A., S.W. Texas. *Exp.* 32 millim. This species is unknown to me; figured from a drawing from type in Brooklyn Institute of Arts and Sciences, the structure examined by Mr. Schaeffer.

Genus CYDOSIA.

	Type.
Cydosia, Westwood, Jardine's Nat. Libr. xxxii. p. 193 (1841) ...	*nobilitella.*
Eggyna, Wlk. xxxv. 1894 (1866)	*mimica.*
Penthetria, H. Edw. Papilio, i. p. 80 (1881), nec Meig, Dipt. 1803.	*majuscula.*
Tantura, Kirby, Cat. Lep. Het. p. 86 (1892)	*majuscula.*

Proboscis fully developed; palpi porrect, not extending beyond the frons and

slightly fringed with scales below; frons with large rounded prominence with small corneous process with raised edges at middle and curved corneous plate below it excised in front; eyes large, round; antennæ of male minutely ciliated; thorax smoothly clothed almost entirely with scales and without crest; tibiæ smoothly scaled; abdomen without crests. Fore wing long and narrow, the apex rounded, the termen evenly curved; veins 3 and 5 from near angle of cell; 6 from upper angle or stalked with 7, 8, 9, 7 from beyond 9; 10, 11 from cell. Hind wing with veins 3, 4 stalked; 5 obsolescent from middle of discocellulars; 6, 7 strongly stalked; 8 anastomosing with the cell to middle.

A. Thorax and fore wing with white spots.
  a. Fore wing with white spots on inner area.
    a^1. Fore wing without white spot beyond the cell ..... *submutata.*
    b^1. Fore wing with one white spot beyond the cell.
      a^2. Patagia with cupreous golden patch.
        a^3. Fore wing with subterminal series of white points and three white spots ..... *nobilitella.*
        b^3. Fore wing with subterminal series of short streaks. *mimica.*
      b^2. Patagia without cupreous golden patch ..... *imitella.*
    c^1. Fore wing with two white spots beyond the cell ..... *phædra.*
  b. Fore wing without white spots on inner area ..... *punctistriga.*
B. Thorax and fore wing without white spots.
  a. Fore wing with cupreous golden ante- and postmedial bands ..... *excisicosta.*
  b. Fore wings without markings..... *majuscula.*

4988. Cydosia submutata. (Plate CXLIX. fig. 3.)

Eggyna submutata, Wlk. xxxv. 1895 (1866).

♀. Black suffused with brilliant purple; sides of frons, vertex of head, tegulæ, shoulders, patagia at extremities and pro- and meso-thorax with white patches; patagia with golden patches; abdomen with ventral white bands, the terminal segment orange. Fore wing with white spot at base; a subbasal golden streak below costa; an antemedial white spot below cell and points in cell and on inner margin; an antemedial somewhat sinuous golden band; white spots in middle and end of cell; cupreous medial spots below costa and cell; a postmedial golden band strongly bent inwards below costa and with its outer edge somewhat dentate; three subterminal white spots, the largest above middle; some points below costa towards apex and before termen below apex; cilia white, black at middle and tornus. Hind wing black suffused with purple, the cilia white at tips. Underside of fore wing with some subterminal white points on apical half.

Hab. Haiti (*Tweedie*), 1 ♀ type. *Exp.* 30 millim.

4989. Cydosia nobilitella.

Phalæna nobilitella, Cram. Pap. Exot. iii. 128, pl. 264 G (1779).
Bombyx histrio, Fabr. Spec. Ins. ii. p. 203 (1781).
Cydosia jamaicensis, Cockerell, J. Inst. Jam. i. p. 135 (1896).
Cydosia westwoodi, Druce, Biol. Centr.-Am., Het. ii. p. 402 (1897).

♂. Head, thorax, and abdomen blue-black; 1st joint of palpi, sides of frons, tegulæ, shoulders, patagia at extremities, pro-, meso-.

and metathorax with white patches; antennæ white at tips; patagia with cupreous red patches; pectus with white spots; femora striped and tibiæ and tarsi spotted with white; abdomen with ventral white bands. Fore wing black suffused with brilliant blue; a white spot at base followed by a cupreous red spot below costa; three antemedial white spots, the one below the cell largest; a sinuous cupreous antemedial line; three medial white spots, the one on costa elongate, that in cell rounded, and the one below the cell quadrate, followed by cupreous, often conjoined, spots on subcostal and median nervures; a large white spot in end of cell followed by a somewhat lunulate spot beyond it and a quadrate

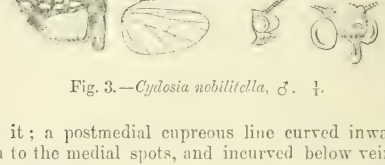

Fig. 3.—*Cydosia nobilitella*, ♂. ½.

spot below it; a postmedial cupreous line curved inwards below costa, often to the medial spots, and incurved below vein 3; some white streaks and spots on costa towards apex; a subterminal series of irregular white spots with some smaller spots above them below costa and beyond them before termen; cilia white, black above middle and tornus. Hind wing semihyaline white; the costal area, an apical patch, and the termen black or mostly black; cilia white at tips. Underside of fore wing with some white spots in and beyond cell and a subterminal series of small spots extending to apical patch of hind wing.

♀. Abdomen with the terminal segment orange; hind wing wholly black or with a little white in and below cell.

Hab. Jamaica (*Gosse*, *Cockerell*), 2 ♂, 2 ♀, type *jamaicensis*, Constant Springs (*Walsingham*), 1 ♂, Moneague (*Walsingham*), 1 ♂; Cuba, Santiago (*Schaus*), 2 ♂, 2 ♀; Haiti (*Tweedie*), 2 ♂, 1 ♀; Bahamas (*Neville Chamberlain*), 1 ♂, Nassau (*Bonhote*), 1 ♂, 1 ♀; Antigua (*Gregory*), 1 ♂; Tobago; St. Lucia (*Rotherham, Cowie*), 5 ♂, 4 ♀; St. Vincent (*H. H. Smith*), 3 ♂; Grenadines (*H. H. Smith*), 1 ♂; Barbados (*Frampton*), 5 ♂; Trinidad (*Hart, Kaye*), 1 ♂, 1 ♀; Colombia, Honda, 1 ♂; Venezuela, 2 ♂, 1 ♀; Br. Guiana (*Rodway*), 1 ♂; Brazil, 1 ♂, Zeller Coll., Para (*Bates*), 1 ♂, Pernambuco (*Ridley*), 1 ♂. *Exp.* 28-32 millim.

Larva. Cockerell, Psyche, 1897, p. 130; Dyar, Psyche, 1897, p. 154.

Semilooper with the front pro-legs absent; velvety black with orange, dorsal and lateral marks with minute pale yellow spots between them except on 3rd, 4th and 5th somites; 3rd somite with four shining black spines; 4th and 5th somites with two spines; the rest of body with fine black hairs; frons and legs black with orange

marks; length 1½ inch. Food-plant: ? *Spigelia anthelmia* L.; the larva curls up and drops to the ground when touched; it turns to pupa in earth.

4990. Cydosia mimica. (Plate CXLIX. fig. 4.)

Eggyna mimica, Wlk. xxxv. 1895 (1866).

♀. Black suffused with brilliant purplish blue; basal joint of palpi, sides of frons, vertex of head, tegulæ, shoulders, patagia at extremities, and pro- and mesothorax with white patches; patagia with golden patches: pectus and legs spotted with white: abdomen with the anal tuft orange, the ventral surface with white bands. Fore wing with white spot at base and golden patch below costa: three antemedial elliptical white spots; a slightly sinuous antemedial golden band; four medial white spots, those below costa and on inner margin elongate, the spot in cell rounded and the one below it quadrate and followed by a sinuous golden band across cell; a white reniform spot in end of cell with a spot beyond the cell, a quadrate spot below it and slight streak on inner margin; a postmedial golden band strongly bent inwards to costa and incurved below vein 3; some white points below costa towards apex and a subterminal series of short streaks; cilia white, black at tips and above tornus. Hind wing and cilia black tinged with purplish blue. Underside of fore wing with white spot in end of cell and a subterminal series of spots extending to apical area of hind wing.

Hab. Brazil, Amazons, Villa Nova (*Bates*), 1 ♀ type. *Exp.* 32 millim.

4991. Cydosia imitella. (Plate CXLIX. fig. 5.)

Cydosia imitella, Stretch, Zyg. & Bomb. N. Am. i. p. 163, pl. 7. f. 8 (1873); Dyar, Cat. Lep. N. Am. p. 216.

Black suffused with brilliant purplish blue; basal joint of palpi, sides of frons, vertex of head, tegulæ, shoulders, patagia at extremity, and pro- and mesothorax with white patches; abdomen with ventral white bands, the terminal segment orange in female. Fore wing with white spot at base; an antemedial white spot below the cell and short streak on inner margin, followed by a cupreous band running inwards along costa to base; medial white spots in and below cell; a quadrate cupreous patch in end of cell; bar-shaped white spots on and beyond discocellulars and an irregular spot below end of cell; a postmedial cupreous band, incurved to costa and somewhat angled inwards in submedian fold; three subterminal white spots with three points above them below costa; cilia white, black at tips and towards tornus. Hind wing and cilia black suffused with purplish blue. Underside of fore wing with subterminal series of white spots.

Hab. U.S.A., Texas (*Belfrage*), 1 ♂, 1 ♀. *Exp.* 26 millim.

4992. Cydosia phædra.

Cydosia phædra, Druce, Biol. Centr.-Am., Het. ii. p. 402, pl. 78. f. 16 (1897).

Black shot with deep blue; 1st joint of palpi, sides of frons, vertex of head, tegulæ, shoulders, patagia at extremity, pro- and mesothorax with white spots; pectus and legs with white spots; abdomen with white ventral bands, the anal tuft orange in female. Fore wing with white spot at base; antemedial spots below cell and on inner margin; an erect antemedial cupreous band bent inwards below costa to near base and not quite reaching inner margin; a rounded medial white spot in cell and more elongate spot below cell; a cupreous band across the cell; a bar-shaped white discoidal spot with two small quadrate spots beyond it and slight streak below it; a slightly curved postmedial cupreous band; subterminal white spots above and below middle and some white points below costa. Hind wing black suffused with purplish blue, the cilia white at tips. Underside of fore wing with subterminal series of white spots.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♂ type, Orizaba (*Florh*), 1 ♀, Yucatan (*Gaumer*), 1 ♀; Guatemala (*Champion*), 1 ♂, 2 ♀; Costa Rica (*Van Patten, Underwood*), 1 ♂, 1 ♀; Panama (*J. J. Walker*), 1 ♀, Godman-Salvin Coll. *Exp.* 30–36 millim.

4993. Cydosia punctistriga. (Plate CXLIX. fig. 6.)

Cydosia punctistriga, Schaus, Trans. Am. Ent. Soc. xxx. p. 150 (1904).

♂. Head and thorax black-brown; frons with lateral white points above; tegulæ at sides and patagia with white spots, the pro- and mesothorax with paired white points, the metathorax with single point; pectus with lateral white spots, the hind tibiæ with white ring at extremity: abdomen dark brown with the extremity orange, the ventral surface with white bands on 1st four segments. Fore wing dark brown, the costal area suffused with metallic cupreous red to near apex; a white spot in base of cell followed by a streak, then four spots, then a wedge-shaped streak beyond the cell with a small spot above its extremity, beyond which is a short streak to termen with a point below its basal end; small antemedial cupreous red spots above and below submedian fold; subterminal cupreous red spots below discal and submedian folds with a white point between them; a series of small white spots just before termen. Hind wing fuscous brown irrorated with a few white scales; the underside with white spots just before termen above and below vein 7.

Hab. Brazil, Castro Paraña (*D. Jones*), 1 ♂. *Exp.* 30 millim.

4994. Cydosia aurivitta. (Plate CXLIX. fig. 7.)

Cydosia aurivitta, Grote & Rob. Trans. Am. Ent. Soc. ii. p. 186 (1869); Dyar, Cat. Lep. N. Am. p. 217.

Black suffused with deep blue; abdomen with the anal tuft in

female orange. Fore wing with antemedial erect cupreous golden band bent inwards along costa nearly to base; a quadrate spot in end of cell; a postmedial band bent inwards below costa, excurved to vein 3, then incurved.

Hab. U.S.A., Texas (*Belfrage*), 2 ♂, 1 ♀. *Exp.* 24 millim.

*4995. Cydosia majuscula. (Plate CXLIX. fig. 8.)

Penthetria majuscula. H. Edw. Papilio, i. p. 80 (1881); Kirby, Cat. Het. p. 86; Dyar, Cat. Lep. N. Am. p. 217.

♀. Uniform purplish fuscous with a metallic gloss except on costa of hind wings; abdomen of female golden yellow at extremity.

Hab. U.S.A., in U.S. Nat. Mus., Georgia, Arizona. *Exp.* 28 millim.

Genus HÆMATOSTICTA.

	Type.
Hæmatosticta, Hmpsn. Moths Ind. iv. p. 542 (1896).	*sanguiguttata.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to middle of frons and broadly fringed with scales in front, produced to an acute angle at extremity, the 3rd joint short and slender; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled, the spurs long; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; vein 3 from well before angle of cell; 4, 5 from angle; 6 from below upper angle, 7 from angle; 8 and 10 stalked and 11 anastomosing with them to form a small areole, 9 absent. Hind wing with the termen excised at discal fold; veins 3, 4 stalked; 5 nearly fully developed from well below middle of discocellulars; 6, 7 stalked; 8 anastomosing with the cell near base only.

4996. Hæmatosticta sanguiguttata.

Hæmatosticta sanguiguttata, Hmpsn. Moths Ind. iv p. 542 (1896).

Head and thorax greyish mixed with pale rufous; palpi rufous, white at tips; antennæ slightly ringed with white; metathorax with some fiery red and black scales; abdomen pale rufous with some fiery red at sides towards base; pectus, legs, and ventral

Fig. 4.—*Hæmatosticta sanguiguttata,* ♂. ♀

surface of abdomen white, the fore legs blackish in front. Fore wing pale rufous, the costal area irrorated with black and grey to near apex; a curved subbasal black and red striga from costa and

fiery red points at base of cell and inner margin; an antemedial grey spot on costa with curved fiery red line from it to inner margin; a grey spot at middle of costa with some fiery red below it; a slight fiery red discoidal mark and sinuous pale red line from lower angle of cell to inner margin; postmedial line fiery red, incurved below vein 4; some pale points on costa toward apex; blackish spots on terminal area at apex, discal and submedian folds, and a terminal series of black striæ; cilia with some blackish above and below middle. Hind wing pale rufous; a slight red subbasal line; a small round deep fiery red discoidal spot defined on inner side by black, with faint red line from it to inner margin; traces of sinuous interrupted red postmedial and two subterminal lines, the latter with small black spots at costa; a terminal series of black points; cilia irrorated with black; the underside white faintly tinged with brown, a slight dark discoidal bar.

Hab. CEYLON, Kandy (*Green*), 1 ♂, 1 ♀ type. *Exp.* 14 millim.

Genus **HYRIODES**, nov.

Type, *H. leucocraspis*.

Proboscis fully developed; palpi upturned, slender, the 2nd joint reaching vertex of head and slightly fringed with hair above towards extremity, the 3rd short, porrect; frons smooth; eyes large, round; antennæ of female ciliated; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled, the spurs long, the fore tarsi with slight tufts of scales on the joints; abdomen without crests. Fore wing long and narrow, the apex produced and acute, the termen angled at vein 4, then very oblique to tornus; vein 3 from well before angle of cell; 5 from just above angle; 6 from well below upper angle; 7 from angle; 8, 9, 10, 11 stalked. Hind wing with the termen extremely strongly excised at discal fold and angled at veins 4 and 2, the cilia very long and spatulate at extremities; veins 3 and 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6,7 shortly stalked; 8 anastomosing with the cell near base only.

4997. **Hyriodes leucocraspis**, n. sp.

♀. Head and thorax grey-white mixed with reddish brown; abdomen red-brown with some grey at base and extremity; pectus, mid and

Fig. 5.—*Hyriodes leucocraspis*, ♀. ♀.

hind legs and ventral surface of abdomen whitish. Fore wing red-brown; a faint pale antemedial line, incurved in cell and oblique below submedian fold; reniform represented by a small V-shaped

whitish mark with oblique dark striga above it from costa; post-medial line brown defined on outer side by whitish, but outwards below costa and obliquely incurved below vein 4, some whitish points with dark streaks between them beyond it on costa; sub-terminal line indistinct and whitish with dentate blackish marks beyond it from costa to vein 4, then strong, oblique, white, and emitting white streaks to the cilia at veins 3 and 2; a terminal chocolate-brown band from apex to vein 4, slightly defined on inner side by ochreous; cilia dark brown from apex to vein 4 with a fine ochreous line at base. Hind wing red-brown irrorated with a few large black scales, the terminal area white irrorated with a few large black scales, narrowing to tornus; a series of red-brown lunules on termen; the underside pale reddish brown with dark discoidal lunule, the terminal area white narrowing to tornus.

Hab. Borneo, Sandakan (*Pryer*), 1 ♀ type. *Exp.* 14 millim.

Genus **ACIDALIODES**, nov.

Type, *A. perstriata*.

Proboscis aborted, minute; palpi obliquely upturned, the 2nd joint reaching to vertex of head and slightly fringed with scales behind towards extremity, the 3rd short; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled, the spurs long; abdomen with dorsal series of slight crests. Fore wing long and narrow, the apex rounded, the termen obliquely curved and not crenulate; vein 3 from well before angle of cell; 5 from just above angle; 6 from well below upper angle; 7 from angle; 8, 9, 10, 11 stalked. Hind wing with veins 3, 4 from angle of cell; 5 obsolescent from middle of discocellulars; 6, 7 shortly stalked; 8 anastomosing with the cell near base only.

Sect. I. Hind wing with the termen slightly angled at vein 4, then excised and crenulate.

4998. **Acidaliodes excisa**, n. sp.

♂. Head and thorax greyish white; palpi and a band above frons rufous; abdomen greyish white irrorated with rufous and with blackish band on medial segments; pectus, legs and ventral surface of abdomen whitish. Fore wing greyish white slightly irrorated with red-brown, the area from medial to subterminal line

Fig. 6.—*Acidaliodes excisa*, ♂. ♀.

except towards costa and the costal area towards apex suffused with red-brown and dark brown; obliquely placed subbasal black points on and below costa; antemedial line blackish, with short streak on costa, interrupted below costa, incurved in cell, then excurved and

oblique to inner margin ; a slight black streak on middle of costa and curved blackish medial line from below costa to inner margin with the whitish discoidal bar on its outer edge ; postmedial line blackish faintly defined on outer side by whitish, slightly incurved from costa to vein 4, then oblique, the costa beyond it with alternating black and white striæ ; subterminal line blackish, bent inwards as a streak below costa to near postmedial line, angled outwards at vein 7 and ending at tornus ; some red-brown suffusion on termen and a terminal series of black points with white striæ before them. Hind wing whitish slightly irrorated with red-brown, the medial area suffused with red-brown and black-brown ; antemedial line blackish ; traces of a blackish medial line with black point at inner margin ; postmedial line diffused, blackish, angled outwards at vein 4, then oblique ; a red-brown subterminal shade from apex to vein 3 ; a terminal black band from apex to vein 4, then a series of lunules ; the underside white irrorated with brown, a blackish discoidal point and indistinct postmedial line.

Hab. Colombia (*Nolcken*), 1 ♂ type, Minca (*H. H. Smith*). *Exp.* 14 millim.

Sect. II. Fore and hind wings with the termen slightly excised below apex.

4999. **Acidaliodes truncata**, n. sp.

♀. Head and thorax white slightly tinged with brown ; abdomen white tinged with brown and dorsally suffused with blackish except towards base. Fore wing whitish tinged and irrorated with brown ; a slight subbasal blackish point in cell ; a slight curved dark antemedial line with black point in submedian fold ; a faint whitish discoidal spot ; postmedial line slight, blackish, very oblique from costa to vein 6, incurved below vein 4 and with black point on it in submedian fold ; a faint minutely waved whitish subterminal line ;

Fig. 7.—*Acidaliodes truncata*, ♀. ♀.

a terminal series of black points conjoined into a narrow band towards apex and defined on inner side by a whitish line ; cilia black-brown at tips from apex to vein 4. Hind wing whitish suffused and irrorated with dark brown ; slight oblique sinuous blackish subbasal and medial lines on inner area ; an oblique white subterminal line defined on each side by fine black lines ; a fine black terminal line defined on inner side by a white line ; cilia white with brown line near base from apex to discal fold ; the

underside white tinged with brown except towards base and on termen.

Hab. Panama, La Chorrera (*Dolby-Tyler*), 1 ♀ type. *Exp.* 10 millim.

Sect. III. Both wings with the termen evenly curved.

A. Fore wing with the costal half suffused with rufous and strongly contrasting.
  a. Wings with the ground-colour orange-yellow. ..... *enona.*
  b. Wings with the ground-colour pure white..... *celenna.*
B. Fore wing with the costal half not strongly contrasting.
  a. Hind wing with subterminal black spots on and below costa and at tornus..... *atripuncta.*
  b. Hind wing without subterminal black spots.
    a^1. Fore wing without black streaks in and beyond the cell. *lycaugesia.*
    b^1. Fore wing with black streaks in and beyond the cell. ... *perstriata.*

5000. Acidaliodes enona.

Acidalia enona, Druce, Biol. Centr.-Am., Het. ii. p. 118, pl. 52. f. 17 (1892).

Head, thorax, and abdomen orange-yellow mixed with some rufous; antennæ ringed with black; pectus, legs, and ventral surface of abdomen pale yellow, the fore legs tinged with brown on inner side. Fore wing orange-yellow suffused and irrorated with rufous on costal half; traces of a pale curved antemedial line and of a pale discoidal bar; postmedial line very indistinct, pale, excurved from costa to vein 4, then incurved; brown subterminal streaks with pale points on them from below costa to discal fold and a small spot above vein 1; some brown points on termen towards apex. Hind wing yellow with small rufous patch at base and traces of diffused orange medial and subterminal bands; the underside pale yellow.

Hab. Mexico, Teapa (*H. H. Smith*), 1 ♂ type; Panama, Chiriqui (*Champion*), 1 ♀, Godman-Salvin Coll.; Brazil, Amazons, 1 ♀. *Exp.* 16 millim.

5001. Acidaliodes celenna.

Acidalia celenna, Druce, Biol. Centr.-Am., Het. ii. p. 118, pl. 52. f. 16 (1892).

♂. Head rufous mixed with some white; palpi brown, white at base and at extremities of 2nd and 3rd joints; antennæ ringed with black; thorax white mixed with some rufous; abdomen white with black dorsal bar on basal segment, small spot near extremity and the tip of the bifid anal tuft black; pectus, legs, and ventral surface of abdomen white, the fore legs brown in front. Fore wing white, the costal area suffused with bright rufous and irrorated with black-brown; a subbasal black point on costa; antemedial line represented by black points on costa and in cell and slight

rufous striæ below the cell and at inner margin; a slight white discoidal lunule defined by rufous; a medial black point on costa and rufous striæ above and below vein 1; traces of a rufous postmedial line beyond the cell, a small spot above vein 1 and striæ at inner margin; some fuscous marks on costa towards apex and a subterminal spot at discal fold; a terminal series of points, black on the rufous area, rufous on the white area; cilia rufous towards apex, white faintly tinged with rufous towards tornus. Hind wing white; an indistinct rufous antemedial line; a faint interrupted sinuous rufous postmedial line with small black spot at inner margin; some blackish points on termen towards apex; cilia slightly irrorated with rufous; the underside wholly white.

Hab. Guatemala, Vera Paz (*Champion*), 2 ♂; Panama, Bugaba (*Champion*), 2 ♂ type, Godman-Salvin Coll. *Exp.* 18 millim.

5002. **Acidaliodes atripuncta**, n. sp. (Plate CXLIX. fig. 9.)

♂. Head, thorax, and abdomen whitish mixed with rufous and fuscous; palpi with the 2nd and 3rd joints banded with black; antennæ ringed with black; abdomen with the crests and the bifid anal tuft black at tips; pectus, legs, and ventral surface of abdomen white, the last suffused with brown towards extremity. Fore wing whitish suffused and irrorated with rufous, the costal area irrorated with dark brown; antemedial line represented by blackish points on costa and in cell and an oblique whitish line from cell to inner margin; a small white discoidal spot with black spot on its inner side; a black point at middle of costa; traces of a white postmedial line oblique from costa to vein 4 towards termen, then incurved; a whitish subterminal line from costa to vein 4, excurved below costa, defined on inner side by diffused blackish streaks and on outer by some black points, a black point near tornus; some black points on termen towards apex. Hind wing whitish suffused and irrorated with rufous; a curved diffused rufous medial line with black spot at inner margin and some black scales in the long cilia at that point; traces of a sinuous white subterminal line with small black spots on its outer edge at costa and below apex and a spot at tornus; two black points on apical part of termen.

Hab. Brazil, Espiritu Santo, 1 ♂ type. *Exp.* 18 millim.

5003. **Acidaliodes lycaugesia**, n. sp. (Plate CXLIX. fig. 10.)

♂. Head, thorax, and abdomen whitish suffused with bright rufous, the last slightly darker at middle and with the minute dorsal crests black. Fore wing whitish almost wholly suffused with bright rufous; slight fuscous antemedial and medial points on costa; a small white discoidal spot; postmedial line very ill-defined, white, very oblique from costa to vein 6, then inwardly oblique and somewhat dentate; a terminal series of prominent black points.

Hind wing whitish almost wholly suffused with bright rufous; faint oblique rufous subbasal and antemedial lines with a whitish band between them; a narrow oblique white postmedial band from below costa towards apex to inner margin towards which it is slightly defined on inner side by black; a terminal series of black points defined on inner side by a white line from discal fold to tornus; cilia with a few black scales at tips; the underside white faintly tinged with brown.

Hab. Brazil, Amazons, Breves (*Austen*), 1 ♂ type. *Exp.* 14 millim.

5004. Acidaliodes perstriata.

Prolophota perstriata, Hmpsn. J. Bomb. Soc. Nat. Hist. xvii. p. 676 (1907).

Head and thorax whitish suffused with fuscous, the patagia whiter; abdomen pale rufous; pectus, legs, and ventral surface of abdomen whitish. Fore wing white suffused in parts with red-brown and slightly irrorated with black; the costal edge black towards base; antemedial and medial black points on costa; a black point in middle of cell followed by a black streak in terminal part of cell, then by a slight discoidal bar, then by a black streak

Fig. 8.—*Acidaliodes perstriata*, ♂. ♀.

in discal fold and subterminal point; traces of an oblique rufous medial line from cell to inner margin and of a postmedial line defined on outer side by whitish, excurved from costa to vein 4, then oblique; subterminal line very indistinct, white faintly defined on each side by brown suffusion except towards costa and with series of small black spots beyond it; a terminal rufous line expanding into a narrow band towards apex; cilia white at base, rufous at tips. Hind wing white faintly irrorated with brown; a dark subbasal bar on inner area; a small black discoidal spot; a bright rufous postmedial band slightly angled outwards below costa, then oblique; subterminal line white defined on each side by brown suffusion and with patch of black scales at costa, minutely waved; a rufous terminal line; cilia white and pale brown with a few black scales; the underside white, the costal area slightly irrorated with brown, a slight black discoidal lunule and diffused fuscous subterminal band.

Hab. Ceylon, Hantone (*Green*), 1 ♂ type, Maskeliya (*Pole*), 1 ♀. *Exp.* ♂ 12, ♀ 14 millim.

Genus ARÆOPTERA.

	Type.
Arœopteron, Hmpsn. Ill. Het. B. M. ix. p. 136 (1893)	*pictalis.*
Essonistis, Meyr. Trans. Ent. Soc. 1902 (Apr.), p. 36	*micræola.*
Thelxinoa, Turner, P. Linn. Soc. N. S. W. xxvii. p. 131 (Aug. 1902)	*epiphracta.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ with slight tufts of scales from the joints and tuft of scales from basal joint; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled, the spurs long; abdomen typically without crests. Fore wing narrow, the apex rounded, the termen obliquely curved and not crenulate; veins 3, 4 stalked; 5 from just above angle of cell; 6 from upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with veins 3, 4 shortly stalked; 5 nearly fully developed from middle of discocellulars; 6, 7 shortly stalked; 8 anastomosing with the cell near base only.

Sect. I. Abdomen with slight dorsal crests towards extremity.

5005. Arœoptera acidalica, n. sp.

♂. Head, thorax, and abdomen white, the last faintly tinged with rufous and with the slight dorsal crests black towards extremity. Fore wing white faintly tinged with rufous; subbasal, antemedial,

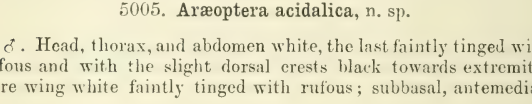

Fig. 9.—*Arœoptera acidalica*, ♂. ♀.

and medial black points on costa; a black discoidal striga and faint oblique rufous line from lower angle of cell to inner margin; postmedial line indistinct, white, defined on inner side by slight rufous suffusion and by some black at inner margin, strongly bent outwards below costa, then oblique; some white points with pale rufous between them beyond it on costa; a faint rufous subterminal shade; a terminal series of black points. Hind wing white faintly tinged with rufous; a black discoidal point; a faint oblique sinuous rufous medial line; postmedial line white, defined on inner side by a rufous shade and some black scales, oblique; a faint rufous subterminal shade; a series of rufous and black terminal points defined on inner side by white; the underside white with minute black discoidal point and diffused brownish postmedial line.

Hab. Jamaica, Moneague (*Walsingham*), 1 ♂ type. *Exp.* 10 millim.

Sect. II. Abdomen without dorsal crests.

A. Fore wing with the postmedial line oblique and straight from below costa to inner margin ..... *fascialis.*
B. Fore wing with the postmedial line sinuous.
a. Fore wing almost wholly white .... *nivalis.*
b. Fore wing suffused in parts with brown and grey.
a^1. Fore wing with the costal and postmedial areas white.
a^2. Frons white.
a^3. Fore wing with brown spots on postmedial part of costa..... *nivescata.*
b^3. Fore wing without brown spots on postmedial part of costa..... *obliquifascia.*
b^2. Frons brown... ..... *prodeuca.*
b^1. Fore wing with the costal and postmedial areas grey.
a^2. Fore wing with oblique brown band from middle of costa to tornus.
a^3. Fore and hind wings white..... .. *epiphracta.*
b^3. Fore and hind wings grey-white..... *pleurotypa.*
c^3. Fore wing with the inner medial area and the hind wing yellowish tinged with rufous..... *rufescens.*
b^2. Fore wing without oblique dark band from middle of costa to tornus.
a^3. Hind wing suffused with bright rufous except on terminal area ... . *pictalis.*
b^3. Hind wing not suffused with rufous.
a^4. Hind wing with fan-shaped tuft of orange scales at upper angle of cell ..... *xanthopis.*
b^4. Hind wing without fan-shaped tuft of orange scales at upper angle of cell.
a^5. Fore wing with large postmedial white patch on costa ..... *leucoplaga.*
b^5. Fore wing with grey postmedial patch below costa.... ..... *poliophæa.*
c^5. Fore wing without pale postmedial patch below costa.
a^6. Fore wing with triangular dark antemedial and medial marks on costa ..... *goniophora.*
b^6. Fore wing without triangular dark marks on costa.
a^7. Fore wing with rufous marks below the antemedial and medial dark points on costa .... *grisealis.*
b^7. Fore wing without rufous marks below costa ....

5006. **Aræoptera fascialis.** (Plate CXLIX. fig. 11.)

Aræopterum fasciale, Hmpsn. Moths Ind. iv. p. 543 (1896).

♂. Head and tegulæ white; palpi and frons blackish; thorax and abdomen white irrorated with brown; fore legs suffused with blackish; mid and hind legs and ventral surface of abdomen whitish. Fore wing whitish suffused with red-brown, the costal area white to postmedial line and thence below costa to apex; postmedial line brown defined on outer side by white, slightly excurved below costa, then oblique, some white points beyond it on costa; subterminal line white, angled outwards to termen at vein 7.

inwards at discal fold and outwards at vein 4; a terminal series of minute black points; cilia with fine white line at base and some white at apex. Hind wing whitish suffused and thickly irrorated with red-brown; a slight dark subbasal line; a diffused dark medial line from below costa to inner margin; a dark postmedial line with diffused white band on outer side; an indistinct white subterminal line; some faint dark points on termen towards apex; the underside greyish suffused with fuscous, a slight dark discoidal bar.

Hab. Ceylon (*Green*), 1 ♂ type. *Exp.* 14 millim.

5007. Aræoptera nivalis. (Plate CXLIX. fig. 12.)

Aræopterum nivalis, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 671 (1907).

♂. Head and thorax pure white; palpi and frons blackish; antennæ tinged with brown except at base; abdomen white tinged with brown; fore legs tinged with brown; mid and hind legs and ventral surface of abdomen white. Fore wing white very faintly irrorated with rufous; a subbasal black point on costa; antemedial line indistinct, rufous, with black point on costa, angled inwards in cell and oblique below the cell; a black discoidal point with black point above it on costa followed by a slight rufous mark; postmedial line indistinct, rufous, waved, from below costa to inner margin; some slight brown marks on postmedial part of costa; subterminal line hardly traceable, white, excurved at middle and with brown marks beyond it at apex and discal fold; a terminal series of black points; cilia white tinged with brown. Hind wing white slightly irrorated with brown; a faint discoidal spot; a rather diffused brown medial band with black spots at costa, discal fold and inner margin; traces of a brownish postmedial line and fine terminal line; the underside white slightly tinged with brown.

Hab. Ceylon, Peradeniya (*Green*), 1 ♂ type. *Exp.* 10 millim.

5008. Aræoptera micræola. (Plate CXLIX. fig. 13.)

Essonistis micræola, Meyr. Trans. Ent. Soc. 1902, p. 36 (Apr.).
Thelxinoa calliscia, Turn. Pr. Linn. Soc. N. S. W. xxvii. p. 133 (Aug. 1902).

♂. Head and thorax pure white; palpi blackish except at extremities of 2nd and 3rd joints; frons with black points at sides; abdomen white suffused with red-brown at base and extremity and fuscous at middle; fore legs brownish in front; pectus, mid and hind legs, and ventral surface of abdomen white. Fore wing white; some brown on costa towards base; antemedial line slight, brown; oblique, angled outwards below costa and cell; the outer half of medial area suffused with brown; an oblique black discoidal bar; postmedial line brown, excurved from below costa to vein 4, angled inwards at submedian fold, then again excurved above inner margin; the costa towards apex with alternating brown and white marks; subterminal line only defined by a brown mark before it below costa, and triangular patch beyond it below apex, ending on termen at

vein 3; a large brown patch on termen above tornus; a terminal series of blackish points with rufous between them; cilia white mixed with brown. Hind wing white with diffused black subbasal and medial bands from below costa to inner margin; a fine sinuous black postmedial line with some brown suffusion before it towards costa; subterminal line white with brownish suffusion before and beyond it, minutely waved, excurved at middle and bent outwards to tornus; a red-brown terminal line with some black scales on it; cilia white slightly mixed with brown; the underside white tinged with brown, a dark discoidal striga.

Hab. Queensland, Brisbane (*Turner*), 1 ♂. *Exp.* 14 millim.

*5009. Aræoptera obliquifascia. (Plate CLII. fig. 1.)

Arœoptera obliquifascia, de Joan. ined.

♀. Head and thorax white; palpi fuscous at sides except at tips; abdomen whitish, the medial segments dorsally tinged with flesh-pink, the terminal segments with dark brown. Fore wing white; an inwardly oblique waved blackish antemedial line; medial area broadly suffused with fuscous except at costa, its inner edge inwardly oblique, its outer excurved from vein 5 to termen above tornus, a blackish spot on it at upper angle of cell and traces of a postmedial line bent outwards below costa and incurved below vein 4; a dark subterminal patch at discal fold; cilia tinged with brown. Hind wing white; a slight oblique dark subbasal line; a medial band of dark suffusion with black points on its edges, its inner edge oblique, its outer excurved beyond the cell; the terminal area suffused with blackish; underside of both wings white tinged with brown.

Hab. Mauritius, Curepipe (*Carié*), type † ♀ in Coll. Joannis. *Exp.* 14 millim.

5010. Aræoptera proleuca. (Plate CXLIX. fig. 14.)

Arœoptera proleuca, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 671 (1907).

♂. Head and thorax white, the latter slightly tinged with rufous; palpi rufous with some black at base of 2nd and 3rd joints; frons rufous with black bar above; antennæ rufous except at base; abdomen whitish suffused with rufous and with some fiery red on 1st two segments; fore legs blackish; pectus, mid and hind legs, and ventral surface of abdomen white. Fore wing white suffused in parts with rufous and brown; a fulvous patch on costa near base; an inwardly oblique minutely waved fulvous antemedial line; medial area suffused with pale brown except towards costa; a black lunule in upper extremity of cell with some fulvous above it on costa with black point before it; postmedial line brown, excurved from below costa to vein 4, then incurved and again excurved towards inner margin; postmedial part of costa with white points with fulvous marks between them; a whitish subterminal line with

fulvous suffusion before it, and brown patches beyond it at discal and submedian folds, excurved to near termen at middle ; a terminal series of blackish striæ ; cilia brownish mixed with whitish. Hind wing whitish mostly suffused with rufous; an indistinct dark subbasal line, a red discoidal bar with some black scales on it ; a sinuous black postmedial line with whitish band beyond it and traces of a sinuous whitish subterminal line ; a fine dark terminal line; the underside white tinged with brown, a slight discoidal striga and curved postmedial line.

Hab. Bengal, Calcutta (*Atkinson*), 2 ♂ type ; Ceylon (*Pole*), 1 ♂. *Exp.* 14 millim.

5011. Aræoptera epiphracta. (Plate CXLIX. fig. 15.)

Thelxinoa epiphracta, Turner, P. Linn. Soc. N. S. W. xxvii. p. 132 (1902).

♂. Head and thorax white ; palpi and frons black-brown, the latter with orange bar above ; antennæ brown except at base ; abdomen white with some blackish irroration except at base ; fore legs and mid tibiæ in front blackish ; pectus, hind legs, and ventral surface of abdomen whitish. Fore wing white, the apical area from middle of costa to tornus black-brown ; a subbasal black spot on costa ; antemedial line oblique, fulvous with a black spot at costa ; an oblique black discoidal bar with black spot above it on costa with fulvous streak below it, an oblique fulvous line from lower angle of cell to inner margin ; postmedial line black-brown defined on outer side by white suffusion and also on inner side from costa to vein 4, excurved from below costa to vein 4, then bent outwards to tornus ; a diffused waved subterminal white line from costa to termen at vein 2 ; some white at apex ; a terminal series of small black spots with rufous between them ; cilia chequered black-brown and whitish. Hind wing white slightly irrorated with rufous and dark brown ; a black point at upper angle of cell with sinuous line from it to inner margin ; a sinuous rufous postmedial line with some black scales on it ; a rather diffused sinuous rufous subterminal line with some black scales on it ; a terminal series of small black spots with rufous between them ; cilia chequered whitish and black-brown ; the underside whitish suffused with fuscous brown, a dark discoidal spot and sinuous postmedial line.

Hab. Queensland, Brisbane (*Turner*), 1 ♂. *Exp.* 14 millim.

5012. Aræoptera pleurotypa. (Plate CXLIX. fig. 16.)

Thelxinoa pleurotypa, Turner, Proc. Linn. Soc. N. S. W. xxvii. p. 133 (1902).

♂. Head and thorax white ; palpi and frons black, the latter with orange bar above ; antennæ brownish except at base ; shoulders with black and orange scales ; abdomen white tinged with grey and fulvous ; fore legs and mid tibiæ blackish, the pectus, hind legs, and ventral surface of abdomen white. Fore wing grey-

white; a subbasal black point on costa; antemedial line oblique, fulvous with black spot at costa; a black point at upper angle of cell with blackish patch above it on costa with fulvous streak below it, some black-brown just beyond the cell and an oblique waved fulvous line from lower angle of cell to inner margin; postmedial line black-brown, excurved from below costa to vein 4, then bent outwards to tornus; postmedial part of costa with white points with black-brown streaks between them; subterminal line only defined by a slight black-brown mark before it below costa and black-brown patches beyond it at discal and submedian folds, minutely dentate, angled outwards at vein 4, then incurved and bent outwards to tornus; a terminal series of small black spots with fulvous between them; cilia chequered blackish and white. Hind wing grey-white slightly irrorated with rufous and dark brown scales; a black point at upper angle of cell with faint waved line from it to inner margin; a dark sinuous postmedial line; a black-brown band across apical area and a diffused sinuous rufous and dark brown subterminal line; a terminal series of black points with rufous between them; the underside grey suffused with fuscous brown, a dark discoidal bar.

Hab. Queensland, Brisbane (*Turner*), 1 ♂. *Exp.* 14 millim.

5013. **Aræoptera rufescens**, n. sp. (Plate CXLIX. fig. 17.)

♂. Head, thorax, and abdomen grey mixed with dark brown. Fore wing grey-white with a purplish tinge, the medial area yellowish tinged with rufous from cell to inner margin; a subbasal black and rufous point on costa and small fuscous spots on median nervure and vein 1; an antemedial black and rufous point on costa and traces of a rufous line, slightly angled outwards on median nervure, then oblique; a blackish spot at upper angle of cell with oblique shade from it to inner margin near tornus, some black and rufous above it on costa; postmedial line blackish and obliquely bent outwards from costa to vein 4, then indistinct, rufous and strongly bent inwards, the costa beyond it with black and white points; an indistinct dark subterminal line, ending at tornus; the apical area with some dark suffusion; a terminal series of black points. Hind wing yellow suffused with rufous, the apical area suffused with black; a black discoidal point, slight sinuous postmedial line, and traces of diffused subterminal line; a terminal series of black points; cilia grey mixed with brown; the underside yellowish suffused with brown.

Hab. Ceylon, Kegalle (*Alston*), 1 ♂ type. *Exp.* 10 millim.

5014. **Aræoptera pictalis.**

Aræopteron pictale, Hmpsn. Ill. Het. B.M. ix. p. 137, pl. 168. f. 19 (1893).

♀. Head and thorax grey-white slightly mixed with red-brown; palpi and frons blackish brown; antennæ brown except at base;

fore legs blackish brown in front; abdomen fulvous. Fore wing grey-white irrorated with brown; a small blackish subbasal spot on costa; antemedial line with small blackish spot at costa with orange striga from it and oblique blackish line from cell to inner margin: a black discoidal bar placed on a brownish medial band interrupted by slight orange streaks below costa and cell; the post-medial part of costa with white points with brown streaks between them: subterminal line whitish slightly defined on inner side by brown and with dark brown patches beyond it at apex and above tornus, angled outwards to termen at vein 4, then incurved and bent outwards to tornus; a terminal series of small blackish spots with white striæ before them and some orange between them; cilia dark brown irrorated with white. Hind wing grey-white, the

Fig. 10.—*Aræoptera pictalis*, ♀. ⅔.

whole discal area suffused with bright rufous, the apical area dark brown; a dark subbasal mark on inner area; a black discoidal bar; postmedial line whitish, sinuous; subterminal line whitish, excurved to near termen at middle and bent outwards to tornus; a terminal series of small blackish spots defined on inner side by whitish striæ and with some fulvous between them; cilia brown irrorated with white; the underside grey suffused with brown, a blackish discoidal bar.

Hab. Ceylon, Pundaloya (*Green*), 1 ♀ type. *Exp.* 16 millim.

5015. Aræoptera xanthopis. (Plate CXLIX. fig. 18.)

Aræopterum xanthopis, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 672 (1907).

♂. Head and thorax white mixed with fulvous; palpi and frons blackish; antennæ blackish except towards base; abdomen whitish and fulvous at base, then black with the extremity pure white; fore legs blackish in front; mid and hind legs, pectus and ventral surface of abdomen white. Fore wing grey suffused with fuscous, the basal inner area and the apical area from costa beyond middle to tornus white tinged with brown; the costa, subcostal nervure, and discal fold to middle with fine black and white streaks; a waved black antemedial line; a diffused black discoidal spot; post-medial line black, oblique from costa to discal fold and bent inwards below vein 4; the costa towards apex with alternating red-brown and white marks; subterminal line indistinct, white defined

on inner side by a rufous patch below costa, the area beyond it tinged with pale brown, the line minutely waved, excurved at middle and bent outwards to tornus; a terminal series of black points with rufous between them; cilia rufous mixed with blackish. Hind wing with the base white with diffused black subbasal line, the rest of wing slate-grey; a fan-shaped tuft of orange scales at upper angle of cell with diffused sinuous black band from it to inner margin; a sinuous black postmedial line; a diffused black subterminal band, oblique on apical area, then sinuous; a fine black terminal line; cilia grey and blackish; the underside greyish tinged with brown at base and fuscous on terminal half.

Hab. Ceylon, Haldamulla (*Mackwood*), 1 ♂ type. *Exp.* 14 millim.

5016. Aræoptera leucoplaga, n. sp. (Plate CXLIX. fig. 19.)

♂. Head and tegulæ white; palpi and frons black; antennæ brown except at base; thorax white mixed with brown; abdomen with the basal half brownish and white, the terminal half black, the extremity pure white; fore legs blackish, mid and hind legs and ventral surface of abdomen white. Fore wing fuscous brown with triangular white patch from postmedial part of costa to vein 3, the fine oblique dark postmedial line near its inner edge and the fine white subterminal line just beyond it, excurved at middle, then incurved and bent outwards to tornus; a terminal series of faint blackish points with slight white striæ before them towards apex. Hind wing fuscous brown with the base whitish; a dark discoidal spot, indistinct sinuous dark postmedial line and indistinct sinuous whitish subterminal line: a fine whitish line at base of cilia; the underside greyish suffused with fuscous brown.

Hab. Pulo Laut (*Doherty*), 1 ♂ type. *Exp.* 12 millim.

5017. Aræoptera poliophæa, n. sp. (Plate CXLIX. fig. 20.)

♀. Head and tegulæ white; palpi and frons black; antennæ blackish except towards base; thorax greyish mixed with fuscous brown; abdomen brownish at base, yellowish at middle and blackish towards extremity; fore legs blackish; mid and hind legs and ventral surface of abdomen whitish, the tarsi slightly ringed with black. Fore wing whitish mostly suffused with fuscous brown, the basal half except towards inner margin and a patch on postmedial area below costa whiter; a subbasal black point on costa; an antemedial black point on costa with orange striga from it and an oblique blackish line from subcostal nervure to inner margin slightly angled outwards in submedian fold; a black discoidal point; postmedial line with black striga from costa with slight orange mark below it, then oblique to vein 6, and incurved and minutely waved below vein 4; the postmedial part of costa with alternating dark and whitish marks; a whitish subterminal line,

angled outwards at vein 7, excurved at middle, then incurved and bent outwards to tornus; a terminal series of black striæ. Hind wing grey suffused with fuscous brown; a black discoidal spot; a sinuous postmedial line defined on outer side by whitish; a whitish subterminal line oblique from costa to vein 5, then waved; a blackish terminal line; the underside grey suffused with fuscous brown.

Hab. Ceylon, Maskeliya (*Pole*), 1 ♀ type. *Exp.* 16 millim.

5018. Aræoptera goniophora. (Plate CXLIX. fig. 21.)

Aræopteron goniophora, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 672 (1907).

♀. Head and thorax grey-white mixed with some red-brown; abdomen red-brown mixed with some grey; pectus, legs, and ventral surface of abdomen grey-white, the fore tarsi brown ringed with whitish. Fore wing grey-white mostly suffused with red-brown and slightly irrorated with black; a minutely waved inwardly oblique brown antemedial line with triangular red-brown patch before it on costa; a triangular red-brown patch on middle of costa with diffused shade from it to inner margin; a faint brown postmedial line oblique and sinuous from costa to vein 5, then inwardly oblique; subterminal line whitish defined on inner side by brown, oblique from costa to vein 5, angled inwards at submedian fold and bent outwards to tornus; a terminal series of blackish points with whitish line before them. Hind wing greyish suffused with red-brown and slightly irrorated with blackish; a black discoidal spot with dark line from it to inner margin; a sinuous blackish postmedial line with paler band beyond it; an indistinct pale subterminal line defined on inner side by brown and with brown suffusion beyond it, oblique from costa to vein 5, then somewhat dentate; a terminal series of blackish points; the underside grey tinged with red-brown.

Hab. Ceylon, Peradeniya (*Green*), 1 ♀, Hambantota (*Pole*), 2 ♀ type, Nawalapitiya (*Mackwood*), 1 ♀, Maskeliya (*Alston*), 1 ♀, Pulo Laut (*Doherty*), 1 ♀. *Exp.* 10 millim.

5019. Aræoptera griseata. (Plate CXLIX. fig. 22.)

Aræopteron griseata, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 671 (1907).

Head and thorax white slightly mixed with brown; palpi and frons blackish; abdomen red-brown; fore legs blackish; mid and hind legs and ventral surface of abdomen whitish. Fore wing grey thickly irrorated with red-brown; a subbasal black point on costa; an antemedial black point on costa with rufous striga from it and black points in cell and submedian fold; two black points on middle of costa with rufous mark below them; a black point at upper angle of cell and indistinct double sinuous oblique line from just beyond

upper angle to inner margin; some slight rufous marks on post-medial part of costa; traces of a whitish subterminal line with brown suffusion before and beyond it, angled outwards at vein 7 and excurved at middle; a terminal series of black striæ. Hind wing greyish thickly irrorated with red-brown; a black discoidal point, minutely waved postmedial black line and terminal series of black points; the underside greyish suffused with fuscous brown.

Hab. Sierra Leone (*Clements*), 1 ♀; Ceylon, Peradeniya (*Green*), 10 ♂ type, Puttalam (*Pole*), 1 ♂, Nawalapitiya (*Mackwood*), 1 ♂, Hambantota (*Pole*), 1 ♂; Pulo Laut (*Doherty*), 1 ♂, 2 ♀. *Exp.* 8–12 millim.

5020. Aræoptera canescens. (Plate CXLIX. fig. 23.)

Isopteryx canescens, Wlk. xxxiv. 1318 (1865).
Isopteryx favillalis, Wlk. xxxiv. 1319 (1865).

Head, thorax, and abdomen white slightly tinged with brown; palpi and frons more or less suffused with red-brown and black; pectus, legs, and ventral surface of abdomen white. Fore wing white faintly tinged and irrorated with brown; antemedial line represented by a black point in cell and oblique line from cell to inner margin; a black point at upper angle of cell with oblique brownish line from it to inner margin; the postmedial part of costa with white points with slight brown streaks between them; post-medial line slight, brown, oblique, from below costa to inner margin; the terminal area slightly more irrorated with brown; subterminal line white, oblique, slightly angled outwards at middle; a terminal series of minute black points. Hind wing white slightly tinged and irrorated with brown; a slight blackish subbasal line; a double black medial line; traces of a sinuous whitish subterminal line defined on each side by black irroration; a terminal series of black points; the underside white irrorated with brown, a black discoidal striga and indistinct postmedial line.

Ab. 1. Fore and hind wings with the postmedial area tinged with rufous.

Hab. Sierra Leone (*Clements*), 3 ♀; S. Nigeria, Lagos (*Boag*), 1 ♀; Pulo Laut (*Doherty*), 1 ♂, 1 ♀; Queensland, Brisbane (*Turner*), 1 ♀, Moreton Bay (*Diggles*), 1 ♂, 1 ♀, type and type *favillalis*. *Exp.* 10 millim.

Genus TRISSERNIS.

	Type.
Trissernis, Meyr. Trans. Ent. Soc. 1902 (Apr.), p. 37	*prasinoscia.*
Bryomima, Turner, Proc Linn. Soc. N. S. W. xxvii. p. 134 (Aug. 1902); nec Staud. Lep. 1899	*prasinoscia.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching vertex of head and slenderly scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male minutely ciliated; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled, the spurs long; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved

and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from just below middle of discocellulars; 6, 7 shortly stalked; 8 anastomosing with the cell near base only.

A. Fore wing strongly suffused with olive-green ..... *prasinoscia.*
B. Fore wing suffused with pale olive-brown ..... *ochrochlora.*

5021. Trissernis prasinoscia.

Trissernis prasinoscia, Meyr. Trans. Ent. Soc. 1902 (Apr.), p. 37.
Bryomima elæoles, Turner, Proc. Linn Soc. N. S. W. xxvii. p. 134 (Aug. 1902).

Head, and thorax white, tinged with olive-green; palpi and frons brownish; antennæ brown except towards base; abdomen white and olive-green at base, then suffused with brown and with fulvous band on 3rd segment; fore legs blackish in front; pectus, mid and hind legs, and ventral surface of abdomen whitish. Fore wing white suffused with olive-green and irrorated with a few black scales; the costa with series of short black streaks; a diffused blackish subbasal band from below costa to inner margin; antemedial line slight, blackish, inwardly oblique; a rather wedge-shaped black discoidal spot with sinuous brown line from it to inner margin; a black medial line excurved round the discoidal spot, then punctiform; an indistinct blackish postmedial line, excurved below costa, then oblique; subterminal line indistinct, grey defined on each side by

Fig. 11.—*Trissernis prasinoscia*, ♂. $\frac{2}{1}$.

brownish suffusion, angled outwards below costa where there is some blackish before it, angled inwards at discal fold and excurved at middle, some blackish before it towards inner margin; a terminal series of blackish points; cilia tinged with rufous and chequered with brown. Hind wing white suffused with olive-green and irrorated with a few large black scales; a blackish discoidal spot with sinuous line from it to inner margin; a sinuous blackish postmedial line from below costa to inner margin; an indistinct diffused sinuous subterminal line defined on each side by fuscous suffusion; a terminal series of blackish striæ; cilia whitish chequered with brown; the underside whitish tinged with brown, the terminal area suffused with fuscous, an indistinct dark discoidal spot.

Hab. Queensland, Kuranda (*Dodd*), 1 ♀, Brisbane (*Turner*), 2 ♂. *Exp.* 16 millim.

5022. Trissernis ochrochlora. (Plate CXLIX. fig. 24.)

Bryomima ochrochlora, Turner, Pr. Linn. Soc. N. S. W. xxvii. p. 135 (1902).

Head and thorax grey-white slightly tinged with brown; palpi black except at tips; antennæ brown except at base; abdomen grey suffused with brown; fore legs blackish; pectus, mid and hind legs, and ventral surface of abdomen whitish. Fore wing grey-white mostly suffused with pale olive-brown; antemedial line brown, inwardly oblique, sinuous, with black point on it in cell and brownish mark before it in and below cell; a diffused blackish discoidal spot with oblique black striga above it from costa, defined on outer side by whitish; postmedial line blackish, slightly sinuous, excurved from costa to vein 3, then bent inwards to below end of cell and erect to inner margin; the terminal area suffused with brown; the subterminal line represented by an oblique white bar across apical area and excurved mark at middle; a slight blackish subapical spot; a terminal series of blackish points. Hind wing whitish suffused in parts with olive-brown; a slight curved brown antemedial line and strong oblique black medial line; the terminal area suffused with brown with a sinuous whitish subterminal line; a terminal series of blackish points; the underside whitish, the terminal area suffused with brown, a diffused brownish postmedial line.

Hab. Queensland, Kuranda (*Dodd*), 2 ♂, 1 ♀, Brisbane (*Turner*), 1 ♂, 1 ♀. *Exp.* 10 millim.

Genus **MICROBLEMMA**, nov.

Type, *M. discipuncta*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching about to vertex of head and moderately fringed with hair in front, the 3rd minute; frons smooth; eyes large, round; antennæ of female ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with depressed crest; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; vein 3 from well before angle of cell; 5 from just above angle; 6 from just below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 strongly stalked; 5 nearly fully developed from well above angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

5023. Microblemma discipuncta, n. sp.

♀. Head and thorax yellowish brown, the palpi, tips of patagia, and metathorax fuscous, the last with some ochreous white in metathoracic crest; abdomen fuscous brown; pectus and ventral surface of abdomen ochreous white. Fore wing yellowish brown irrorated with fuscous, the base and inner margin towards base fuscous; traces of a minutely waved antemedial line; a black point in middle of cell and round fuscous black discoidal spot; traces of a blackish postmedial line, bent outwards below costa, then oblique and

minutely waved; some slight black marks on costa towards apex; a diffused blackish subterminal line: a terminal series of black

Fig. 12.—*Microblemma discipuncta*, ♀. ⅔.

striæ. Hind wing fuscous brown mixed with some greyish; the underside greyish tinged with olive, a dark discoidal point, indistinct curved postmedial line, and terminal series of striæ.

Hab. Panama, La Chorrera (*Dolby-Tyler*), 1 ♀ type. *Exp.* 14 millim.

Genus **PROROBLEMMA**, nov.

Type, *P. stictopteris*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching about to vertex of head and fringed with long hair above towards extremity, the 3rd short, porrect; frons smooth; eyes large, round; antennæ of female ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen without crests. Fore wing with the apex rounded, the termen very obliquely curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from well above angle; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

5024. Proroblemma stictopteris.

Acidalia stictopteris, Butl. Trans. Ent. Soc. 1881, p. 339.

♀. Head and thorax pale purplish with a few black scales; abdomen browner. Fore wing pale purple irrorated with a few raised black scales, the postmedial area rather redder except

Fig. 13.—*Proroblemma stictopteris*, ♀. ⅔.

towards costa; a black point in middle of cell; postmedial line fuscous, oblique from costa to vein 6, strongly incurved below vein 4; subterminal line indistinct, dark, oblique and downcurved from costa to vein 7 where it is angled, then minutely waved; a

terminal series of prominent black points. Hind wing purplish tinged with brown; a terminal series of black points; cilia pale reddish; the underside pale purplish, the costal area irrorated with black, a black discoidal spot, curved postmedial line, and terminal series of rather triangular spots.

♂. Fore wing with large blackish discoidal spot; hind wing yellowish white, the termen very faintly tinged with purplish.

Hab. Brazil, Amazons, R. Jutahi, Barrena Branca (*Trail*), 1 ♀ type, Espiritu Santo, 1 ♂. *Exp.* 16 millim.

Genus **EUBLEMMISTIS.**

Type.

Eublemmistis, Hmpsn. Ann. S. Afr. Mus. ii. p. 406 (1902) ..... *chlorozonea*.

Proboscis aborted, slender; palpi obliquely porrect, extending to well beyond the frons, the 2nd joint moderately scaled, the 3rd short; frons smooth; eyes large, round; antennæ of male serrate and fasciculate; thorax clothed with scales and hair mixed and without crests; tibiæ moderately fringed with hair; abdomen without crests. Fore wing with the apex produced and acute, the termen excised below apex and excurved at middle, somewhat crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5025. Eublemmistis chlorozonea.

Eublemmistis chlorozonea, Hmpsn. Ann. S. Afr. Mus. ii. p. 406 (1902).

Head, thorax, and abdomen white with a few olive-brown and black scales, the palpi and fore legs darker. Fore wing white irrorated with pale olive and black scales, the costa pale olive-green; traces of an olive-green subbasal line from costa to submedian fold; a waved olive-green antemedial line; two black discoidal points;

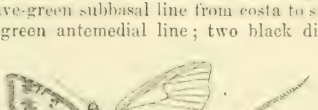

Fig. 14.—*Eublemmistis chlorozonea*. ♂. ♀.

postmedial line olive-green, double, indistinct, minutely waved, angled inwards in submedian fold to near antemedial line; postmedial area olive-green with some white points on costa, its outer edge dentate and representing the subterminal line, angled inwards at discal and submedian folds; a terminal series of black points and striæ; cilia olive-green with two black points at tips at middle. Hind wing white slightly irrorated with black and with faint diffused postmedial and subterminal olive-green bands; a terminal

series of black points; cilia olive-green with a few black scales; the underside white sparsely irrorated with black and olive-green, a black discoidal bar and terminal series of points.

Hab. Natal, Durban (*Leigh*), 2 ♂, 1 ♀ type. *Exp.* 20–26 millim.

Larva. Geometriform, Coccidiphagous, pupating in cocoon covered with their exuviæ (*G. F. Leigh*).

Genus **CATOBLEMMA**, nov.

Type, *C. sumbavensis*.

Proboscis fully developed; palpi obliquely porrect, extending about twice length of head, the 2nd joint fringed with hair above, the 3rd moderate; frons smooth; eyes large, round; antennæ of female somewhat laminate and minutely ciliated; thorax clothed almost entirely with scales and without crests; tibiæ moderately fringed with hair; abdomen without crests. Fore wing with the apex rounded, the termen not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Fore wing with the termen somewhat excised below apex and excurved at middle; hind wing with the termen excised at discal fold; palpi with the 2nd joint triangularly fringed with long hair above towards extremity.

A. Wings tinged with pink ..... *rosealis.*
B. Wings not tinged with pink ..... *pictalis.*

5026. Catoblemma rosealis. (Plate CXLIX. fig. 25.)

Mimoruza rosealis, Hmpsn. Moths Ind. iv. p. 520 (1896).

♀. Head and thorax white; palpi suffused with dark brown at sides, the fringe blackish at tips; frons with ridge of black-brown hair above; legs tinged with ochreous brown, the fore tarsi ringed with white; abdomen white, dorsally tinged with ochreous, ventrally irrorated with brown. Fore wing white tinged in parts with pale pink; a subbasal brown point on costa; an antemedial brown point on costa and traces of a slight ochreous line angled inwards at vein 1; a slight ochreous spot in middle of cell and another at middle of costa with the slight medial line arising from it, excurved to median nervure, then incurved and with ochreous band beyond it; a black point at upper angle of cell and spot at lower angle diffused on outer side; a truncate conical ochreous brown patch on post-medial part of costa; the slight blackish postmedial line arising from its inner edge and bent inwards below vein 4; subterminal line white, angled outwards at middle, the area beyond it suffused with brown and irrorated with blackish; a terminal series of black striæ defined on inner side by white; cilia ochreous brown with fine white line at base and some black scales at middle. Hind wing

white tinged in parts with pink especially on medial and terminal areas; an ochreous line from upper angle of cell to inner margin with slight tuft of black scales beyond it at lower angle of cell; a faint minutely waved ochreous postmedial line angled outwards at middle and ending on inner margin at the medial line; terminal area with patches of ochreous brown suffusion from apex to discal fold and below vein 4; cilia ochreous brown with a fine white line at base; the underside whitish irrorated with brown.

Hab. Bhután, 2500′ (*Dudgeon*), 1 ♀ type. *Exp.* 20 millim.

5027. Catoblemma pictalis.

Mimoruza pictalis, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 450 (1897).

♂. Head white; palpi and antennæ rufous; thorax and abdomen white tinged with rufous, the latter with black dorsal line at base of anal tuft. Fore wing creamy white mostly suffused with rufous; a subbasal black point on costa; antemedial line rufous with black point at costa, incurved at subcostal nervure, then excurved; a black point in middle of cell and two on discocellulars; medial line rather diffused, rufous, very oblique from costa to beyond the cell where it is angled, then strongly incurved; postmedial line slight, brown defined on outer side by white, and with black point at costa, oblique from costa to vein 6, slightly angled outwards at veins 4, 3, then incurved, the area beyond it grey on inner half and with a truncate conical ochreous-brown patch on costal area with some white points on costa; subterminal line white, at middle rufous and angled outwards at veins 4, 3, incurved towards costa and inner margin; apical area whitish; an ochreous brown terminal line; cilia ochreous-

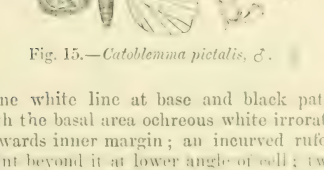

Fig. 15.—*Catoblemma pictalis*, ♂.

brown with fine white line at base and black patch at middle. Hind wing with the basal area ochreous white irrorated with a few black scales towards inner margin; an incurved rufous medial line with black point beyond it at lower angle of cell; two white postmedial lines filled in with ochreous brown and ending at tornus, the inner line sinuous, the outer slightly angled outwards at veins 4, 3, the area before them brown and beyond them grey; an ochreous brown terminal line interrupted at vein 2 and submedian fold; cilia ochreous brown with a fine white line at base; the underside ochreous white with some black irroration on costa towards base, black

discoidal striga, sinuous brown postmedial line, maculate subterminal line dilated into a patch towards costa, and terminal series of points.

Hab. Assam, Khásis, 1 ♂ type. *Exp.* 24 millim.

Sect. II. Both wings with the termen evenly curved; palpi with the 2nd joint slightly fringed with hair above towards extremity.

A. Fore wing ochreous, the lines not waved ..... *sumbavensis.*
B. Fore wing whitish suffused in parts with dark brown, the lines waved ..... *umbrifera.*

5028. **Catoblemma sumbavensis**, n. sp. (Plate CXLIX. fig. 26.)

♀. Head, thorax, and abdomen ochreous white suffused with pale rufous, the palpi rather deeper rufous. Fore wing ochreous white suffused with pale rufous; antemedial line rather diffused, fuscous, curved; postmedial line rather diffused, fuscous, oblique from costa to discal fold, then inwardly oblique; traces of a slightly sinuous dark subterminal line; cilia slightly deeper rufous. Hind wing ochreous white tinged with rufous; traces of a postmedial line formed of fuscous scales on inner area; the underside with the costal half rather deeper rufous.

Hab. Sumbawa (*Doherty*), 1 ♀ type. *Exp.* 18 millim.

5029. **Catoblemma umbrifera**, n. sp.

Head, thorax, and abdomen white tinged with brown; palpi black; tegulæ with black line at base; the abdomen irrorated with black-brown towards extremity; pectus, legs, and ventral surface of abdomen suffused with black-brown. Fore wing whitish tinged with brown; a dark brown subbasal spot on costa; antemedial line black-brown, incurved in cell, then oblique, sinuous; a black discoidal lunule with oblique black-brown bar above it from costa; postmedial line double, oblique from costa to vein 6, slightly incurved at discal fold and strongly below vein 4, the area beyond

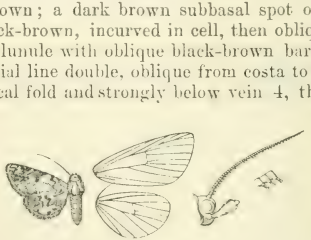

Fig. 16.—*Catoblemma umbrifera*, ♂. ♀.

it almost entirely suffused with black-brown with some white points on costa; subterminal line whitish defined on outer side by black, minutely dentate, incurved at discal fold and below vein 3; a terminal series of black points; cilia black-brown with a fine whitish line at base. Hind wing whitish irrorated with black-brown; a black discoidal spot; postmedial line black-brown, oblique from costa to vein 4, then waved; the terminal area suffused with black-brown except at middle and with the indistinct minutely waved

white subterminal line on it; a terminal black-brown line; cilia black-brown with a whitish line at base; the underside whitish irrorated with brown, a black discoidal striga, sinuous postmedial line and diffused subterminal shade.

Hab. Bhután, 2500′ (*Dudgeon*), 1 ♂; Burma, Rangoon, 1 ♀ type. *Exp.* 18 millim.

Genus CAUTÆSCHRA, nov.

Type, *C. ustipennis.*

Proboscis aborted, small; palpi porrect, extending about the length of head, the 2nd joint fringed with hair above towards extremity, the 3rd short down-turned; frons smooth; eyes large, round; antennæ of female ciliated; thorax clothed almost entirely with scales and without crests; tibiæ with the spurs long; abdomen without crests. Fore wing with the apex somewhat produced and acute, the termen evenly curved and not crenulate; vein 3 from well before angle of cell; 5 from just above angle; 6 from below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

*5030. Cautæschra ustipennis.

Micræschus ustipennis, Hmpsn. Moths Ind. ii. p. 353 (1894).

♀. Head, thorax, and abdomen rufous; vertex of head with white patch, the shaft of antennæ white towards base; pectus, legs, and ventral surface of abdomen paler. Fore wing rufous, the costa and termen blackish: an indistinct slightly sinuous dark antemedial line; a round blackish discoidal spot; postmedial line dark,

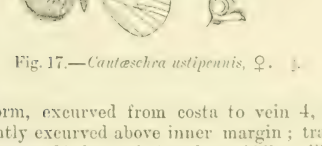

Fig. 17.—*Cautæschra ustipennis*, ♀. ½.

rather punctiform, excurved from costa to vein 4, then incurved and again slightly excurved above inner margin; traces of a dark terminal line excurved below vein 7 and at middle; cilia pale reddish. Hind wing rufous; a faint dark discoidal spot; postmedial line dark, rather punctiform, excurved; traces of a dark subterminal line; the termen black; cilia pale reddish; the underside whitish irrorated with brown, a brown discoidal spot and indistinct curved postmedial line.

Hab. Assam, Naga Hills, 6000′ (*Doherty*), type† ♀ in Coll. Rothschild. *Exp.* 18 millim.

Genus ENISPA.

	Type.
Enispa, Wlk. xxxiv. 1275 (1865)	*cosmaulis.*
Micræschus, Butl. A. M. N. H. (5) i. p. 402 (1878)	*clataria.*
Trogacontia, Hmpsn. Moths Ind. iv. p. 520 (1896)	*albifrontata.*

Proboscis aborted, small or absent; palpi upturned, reaching about to middle of frons, slender and smoothly scaled, the 3rd joint short; frons smooth; eyes large, round; antennæ of male with long cilia; thorax clothed chiefly with scales and without crests; tibiæ smoothly scaled, the spurs long; abdomen without crests. Fore wing with the apex somewhat produced and acute, the termen typically non-crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 stalked; 5 nearly fully developed from below middle of discocellulars; 6, 7, from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Both wings with the termen crenulate and excurved at veins 5 and 3.

5031. Enispa purpurea, n. sp.

♀. Head, thorax, and abdomen ochreous suffused with purple and irrorated with black-brown; palpi in front, pectus, mid and hind legs, and ventral surface of abdomen yellowish white. Fore wing purple thickly irrorated with blackish; a slight blackish subbasal line from costa to vein 1, angled outwards below costa and incurved below the cell; antemedial line indistinct, blackish, waved; a black discoidal bar, constricted at middle; postmedial line double filled in with purple and some pale yellow, bent outwards below costa, then dentate, bent inwards below vein 3 and

Fig. 18.—*Enispa purpurea*, ♂. $\frac{2}{3}$.

angled inwards in submedian fold, some whitish points beyond it on costa; subterminal line double filled in with purple and some pale yellow, minutely waved, incurved below vein 2; a fine waved blackish terminal line; cilia blackish mixed with yellow and with yellow line at base. Hind wing purple thickly irrorated with blackish; a diffused black discoidal spot; postmedial line pale yellow, dentate, with a small quadrate yellow spot beyond the cell; subterminal line double, brown filled in with yellowish, slightly angled outwards at discal fold, then very minutely waved; a black patch at apex; cilia yellowish white mixed with black and with waved yellow line at base; the underside with the basal area brown, a broad diffused whitish medial band, the terminal area fuscous leaving some whitish on termen.

Hab. Singapore (*Ridley*), 1 ♀ type. *Exp.* 20 millim.

Sect. II. (*Enispa*). Fore wing with the termen excised below apex, slightly angled at vein 3 and oblique towards tornus; hind wing with the termen slightly angled at vein 4.

A. Fore wing with the postmedial line oblique throughout ... *albifrontata.*
B. Fore wing with the postmedial line angled at vein 6, then oblique ... *etrocta.*
C. Fore wing with the postmedial line incurved below vein 4.
a. Hind wing with the postmedial line not defined on outer side by white towards inner margin ... *ferreofusa.*
b. Hind wing with the postmedial line defined on outer side by white towards inner margin.
a^1. Fore wing with black discoidal lunule ... *vinacea.*
b^1. Fore wing with slight red discoidal point ... *cosarialis.*

*5032. Enispa albifrontata. (Plate CXLIX. fig. 27.)

Timandra albifrontata, Moore, Lep. Atk. p. 255 (1888); Hmpsn. Moths Ind. iv. p. 521.

♀. Head, thorax, and abdomen pale rufous; vertex of head pure white. Fore wing pale rufous, the costa and termen bright rufous; antemedial and postmedial lines brown, oblique, the latter rather diffused, with three white striæ beyond it from costa; a dark discoidal point; cilia white at tips. Hind wing pale rufous; a diffused oblique medial red-brown line; a red-brown terminal line; cilia white at tips.

Hab. Sikhim, type † ♀ in Mus. Berlin. *Exp.* 24 millim.

5033. Enispa etrocta, n. sp. (Plate CXLIX. fig. 28.)

♀. Head dark brown, the vertex pure white; thorax and abdomen purplish pink; pectus, legs, and ventral surface of abdomen paler. Fore wing purplish pink, irrorated with a few black scales, the costa suffused with black, the postmedial area with a greenish-grey tinge; an inwardly oblique antemedial series of black points on the veins; a small blackish discoidal spot; postmedial line blackish defined on outer side by flesh-pink, oblique from costa to vein 6, then inwardly oblique, some rather elongate pure white marks beyond it on costa; subterminal line only defined by the outer edge of the greenish area which is oblique; a terminal series of slight blackish lunules; cilia bright pink with some black and white scales at tips. Hind wing purplish pink; a somewhat diffused dark medial line defined on outer side by flesh-colour and with a faint greenish-grey shade beyond it; a punctiform black terminal line; cilia bright pink with black and white scales at tips; the underside grey-white irrorated with brown, an indistinct dark discoidal spot and diffused postmedial line.

Hab. Madras, Palnis (*Campbell*), 1 ♀ type. *Exp.* 42 millim.

5034. Enispa ferreofusa, n. sp. (Plate CXLIX. fig. 29.)

♂. Head, thorax, and abdomen brownish grey suffused with purplish red, the vertex of head and base of shaft of antennæ pure white. Fore wing brownish grey suffused with purplish red with some dark irroration, the terminal area from apex to vein 4 and towards tornus whitish, the costal edge dark; traces of a rather inwardly oblique dark antemedial line; a minute black discoidal lunule; postmedial line dark, oblique from costa to vein 6, angled inwards at discal fold, strongly incurved and slightly waved below vein 4, some slight white streaks below it on costa; subterminal line remote from termen, indistinct, dark, incurved from costa to vein 4 where it is angled outwards, then again incurved; a terminal series of black points. Hind wing purplish red slightly mixed with whitish and with some dark irroration; a blackish discoidal point, indistinct diffused curved postmedial line and fine dark terminal line; the underside whitish irrorated with brown, a dark discoidal bar and diffused curved postmedial line.

Hab. Madras, Palnis, Kodaikanal (*Campbell*), 1 ♂ type. *Exp.* 24 millim.

5035. Enispa vinacea.

Hyria vinacea, Hmpsn. Ill. Het. B. M. viii. p. 124, pl. 153. f. 4 (1891).

♀. Head grey-brown; thorax and abdomen pale purplish pink. Fore wing pale purplish pink; subbasal black points on costa and in cell; an antemedial oblique blackish bar from costa to subcostal nervure; a prominent black discoidal lunule; postmedial line black, oblique from costa to vein 7, slightly incurved at discal fold, incurved and reduced to points on the veins below vein 4, some black points with yellowish white marks between them beyond it on costa; subterminal line whitish, very faint except towards costa, incurved below vein 3; a terminal series of black points; cilia yellowish at tips. Hind wing pale purplish pink; slightly irrorated with black except towards base and termen, the costal area greyish; a slight black discoidal bar; postmedial line black with a yellowish white band on its outer edge, irregularly waved, excurved between veins 4, 3; a very indistinct subterminal line formed of black scales with faint whitish marks before it towards costa and inner margin; cilia yellowish at tips; the underside white, irrorated with brown, the terminal area suffused with brown, a brown discoidal lunule and sinuous medial line.

Hab. Madras, Nilgiris (*Lindsay*), 1 ♀ type. *Exp.* 22 millim.

5036. Enispa eosarialis.

Enispa eosarialis, Wlk. xxxiv. 1275 (1865).

♂. Head, thorax, and abdomen rufous mixed with some ochreous, the vertex of head whitish; legs and ventral surface of abdomen

whitish tinged with ochreous. Fore wing whitish suffused with blood-red, especially on basal and medial areas, and irrorated with a few black scales; an indistinct punctiform red antemedial line; a slight discoidal red point with striga above it from costa; postmedial line reddish with some black scales on it, oblique from costa to vein 4, then incurved, the costa beyond it with short alternating black and white streaks; subterminal line faint, whitish, excurved at middle and incurved towards costa and inner margin; a terminal series of small red spots; cilia blood-red with whitish line at base

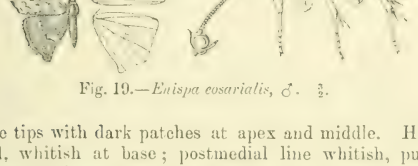

Fig. 19.—*Enispa cosarialis*, ♂. ⅔.

and white tips with dark patches at apex and middle. Hind wing blood-red, whitish at base; postmedial line whitish, punctiform except towards inner margin, defined on inner side by some black scales, oblique to vein 3 where it is angled outwards; cilia with a fine white line at base; the underside whitish tinged with brown and some rufous especially on terminal area, a sinuous brown medial line.

Hab. Borneo, Sarawak (*Wallace*), type † ♂ in Mus. Oxon.; Pulo Laut (*Doherty*), 1 ♂. *Exp.* 16 millim.

Sect. III. Fore wing with the termen slightly excised below apex and excurved at middle; hind wing with the termen evenly curved.

A. Fore wing with the postmedial area suffused with chocolate-red from costa to vein 2 ..... *prolecta*.
B. Fore wing with the postmedial area not suffused with chocolate-red ..... *luteiscalis*.

5037. Enispa prolecta. (Plate CXLIX. fig. 30.)

Micræschus prolectus, Turner, Tr. R. Soc. S. Austr. xxxii. p. 70 (1908).

Head rufous, the vertex and antennæ white; thorax grey, the metathorax tinged with rufous and with a few black scales; legs slightly tinged with rufous; abdomen grey dorsally tinged with rufous and with slight white segmental lines, the 2nd segment with slight black line. Fore wing grey irrorated with a few black scales, the basal half suffused with silver, the costa red from near base to towards apex; two obliquely placed black points at base; antemedial line acutely angled outward below costa, then represented by a very oblique series of black points on the veins; two blackish discoidal spots; postmedial line blackish, angled outwards below

costa, then oblique and somewhat dentate, slightly excurved beyond lower angle of cell, then obsolescent, the postmedial area suffused with chocolate-red down to vein 2 and with some white points on costa; subterminal line hardly defined except by the contrast between the rufous and grey areas, somewhat dentate, angled inwards at discal fold and incurved below vein 3; cilia deep rufous, yellow at tips. Hind wing grey irrorated with a few black scales, the postmedial area suffused with pale red; postmedial line formed of white points with small spot at inner margin, excurved and somewhat dentate between veins 5 and 2; cilia deep rufous, yellow at tips; the underside whitish, the terminal area tinged with brown, a slight discoidal black lunule and sinuous medial line.

Hab. Queensland, Kuranda (*Dodd*), 1 ♀. *Exp.* 22 millim. Type † ♂ in Coll. Turner.

5038. Enispa lutefascialis.

Mestleta lutefascialis, Leech, Entom. xxii. p. 65, pl. ii. f. 15 (1889).
Aventiola solitaria, Staud. Rom. Mém. vi. p. 605, pl. 14. f. 5 (1892); id. Cat. Lep. pal. p. 253.

Head, thorax, and abdomen pale rufous; antennæ with the shaft white towards base. Fore wing pale rufous irrorated with some silvery scales; antemedial line represented by an oblique dark striga from costa and point in cell; postmedial line blackish, oblique from costa to vein 6, then reduced to points, slightly incurved at discal fold and strongly below vein 4; faint traces of a pale subterminal line; a fine dark terminal line. Hind wing pale rufous slightly irrorated with silvery scales and suffused with blood-red except on basal, costal and terminal areas; a maculate yellowish white postmedial line from discal fold to inner margin, incurved

Fig. 20.—*Enispa lutefascialis*, ♂. $\frac{3}{2}$.

below vein 2; an indistinct yellowish subterminal line and a fine dark subterminal line; cilia red at base, yellowish white at tips; the underside white with slight brown discoidal spot and traces of diffused postmedial and subterminal lines.

Hab. E. Siberia, Ussuri; Japan, Satsuma (*Leech*), 1 ♂ type, Yokohama (*Pryer*), 1 ♀. *Exp.* 20 millim.

Sect. IV. (*Micræschus*). Fore wing with the termen slightly angled at vein 3, then oblique to tornus; hind wing with the termen slightly angled at vein 4.

A. Fore wing with oblique dark streak from lower angle of cell to termen at vein 3.
  a. Fore and hind wings with large white spots before subterminal line at discal and submedian folds ..... *rosella*.
  b. Fore and hind wings without white spots before subterminal line ..... *elataria*.
B. Fore wing without oblique dark streak from lower angle of cell to termen at vein 3.
  a. Wings white with a dark terminal band ..... *albinella*.
  b. Wings deep purple-red ..... *croceicincta*.

5039. Enispa rosella.

Micræschus rosellus, Hmpsn. Ill. Het. B. M. ix. p. 126, pl. 170. f. 17 (1893); id. Moths Ind. ii. p. 352.

Head and thorax white tinged with yellow and mixed with some crimson; abdomen yellowish mixed crimson and mostly suffused with brown; pectus, legs, and ventral surface of abdomen yellowish white. Fore wing yellowish white irrorated with crimson and black scales, the costa irrorated with silver; a dark mark at base of costa and subbasal crimson spots below the cell and above inner margin; antemedial line oblique and dark towards costa, then crimson, angled outwards at median nervure and oblique to inner margin; a small round dark spot in middle of cell, short fascia in end of cell and oblique streak from lower angle to termen at vein 3 irrorated with silver; an oblique medial black line from cell to inner margin; postmedial line slight, blackish, strongly excurved from costa to vein 4, then strongly incurved and with a large white patch beyond it from the oblique fascia to above inner margin; subterminal line slight, blackish, defined on inner side towards costa by white, expanding into a patch at discal fold extending to postmedial line; a narrow terminal black band irrorated with silver; cilia yellow with dark patches at apex and the oblique fascia. Hind wing yellow irrorated with crimson and black; a white discoidal spot defined by black; a slight curved blackish postmedial line with white patches before it at discal and submedian folds defined by black; a slight dark subterminal line excurved at middle; a narrow black terminal band irrorated with silver; cilia yellow with a slight dark mark at middle; the underside whitish, the terminal area suffused with brown.

Hab. Ceylon (*Green*), 1 ♂, 1 ♀ type. *Exp.* 14 millim.

5040. Enispa elataria.

Hyria elataria, Wlk. xxii. 665 (1861); Hmpsn. Ill. Het. B. M. ix. p. 126, pl. 170. f. 16; id. Moths Ind. ii. p. 352.

Head and teguiæ rufous with a few silvery scales; thorax and abdomen yellow irrorated with crimson; pectus and legs yellowish white. Fore wing yellow thickly irrorated with crimson; a brown

fascia on costa irrorated with silvery scales; an oblique brown fascia from lower angle of cell to termen at vein 3 and a narrow terminal band irrorated with a few silvery scales; a small yellowish white discoidal lunule defined by brown; traces of waved antemedial, medial, and postmedial crimson lines from the dark markings to inner margin; a series of small white subterminal spots defined by brown from costa to the oblique fascia, angled inwards at discal fold; cilia yellow with some brown at apex and the oblique fascia.

Fig 21.—*Enispa clataria*, ♂. ♀.

Hind wing yellow thickly irrorated with crimson; a white discoidal spot defined by crimson; traces of a minutely waved crimson postmedial line; a subterminal series of minute white spots defined by crimson; a narrow terminal brown band irrorated with silvery scales; cilia yellow; the underside yellowish, the terminal area suffused with brown.

Hab. CEYLON, Colombo (*Nietner*), 1 ♂ type, Puttalam (*Pole*), 1 ♂, 1 ♀, N. Centr. Province (*de Mowbray*), 1 ♀; SINGAPORE (*Ridley*), 1 ♀; BORNEO, Sandakan (*Peyer*), 1 ♂; JAVA, Arjuno (*Doherty*), 1 ♂, 1 ♀. *Exp.* 14 millim.

5041. Enispa albinella. (Plate CXLIX. fig. 31.)

Micræschus albinellus, Hmpsn. Moths Ind. iv. p. 521 (1896).

♀. Head and thorax white; palpi with some black scales at tips; antennæ brownish; abdomen white dorsally tinged with ochreous, the base of anal tuft crimson. Fore wing pure white; two subbasal and two postmedial black points on costa; an oblique blackish fascia suffused with silver from subcostal nervure before middle to inner margin near tornus, some crimson scales on its upper edge; a crimson discoidal point and a postmedial point in discal fold; terminal area yellow with a series of crimson points on its inner edge and a blackish terminal band suffused with silver, bent inwards to costa and leaving the apex yellow; cilia yellow with some dark scales at base and a dark patch at middle. Hind wing white; a small crimson discoidal spot and spot below it on inner margin; a crimson postmedial line from discal fold to inner margin; a blackish terminal band with some crimson on its inner edge except towards costa where it is bent inwards, leaving a slight yellowish mark at apex; cilia yellow with dark irroration at base except towards apex.

Hab. CEYLON, Kaltura (*Green*), 1 ♀ type. *Exp.* 10 millim

5042. Enispa croceicincta.

Chrysocraspeda croceicincta, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 652, pl. C. f. 22 (1903).

♂. Head, thorax, and abdomen deep purple-red, the vertex of head and shaft of antennæ towards base pure white; pectus, legs, and ventral surface of abdomen whitish, the legs partly suffused with brown. Fore wing deep purple-red with slight silvery irroration; traces of a curved dark antemedial line and a more distinct postmedial line, excurved from costa to vein 4, then incurved and slightly waved, each with small white mark on costa; some slight orange points on apical part of costa; cilia deep orange. Hind wing deep purple-red with slight silvery irroration; traces of a dark postmedial line excurved at middle; cilia deep orange; underside of both wings greyish fuscous.

♀. Fore wing without the white marks on costa at ante- and postmedial lines.

Hab. Ceylon. Kandy (*Mackwood*, *Pole*), 2 ♂ type, Maskeliya (*Pole*), 1 ♀. *Exp.* ♂ 16, ♀ 20 millim.

Sect. V. Fore wing with the costa somewhat truncate towards apex, the termen excised below apex and excurved at middle, vein 7 from 8 beyond 10; hind wing with the termen evenly curved.

5043. Enispa plutonis.

Thalpochares plutonis, Lucas, Trans. Nat. Hist. Soc. Queensl. i. p. 7 (1894).
Micræschus pyrrhantha, Meyr. Trans. Ent. Soc. 1902, p. 31 (April).
Micræschus diacaustus, Turner, Pr. Linn. Soc. N. S. W. xxvii. p. 115 (Aug. 1902).

♂. Head and thorax fiery red; abdomen yellowish suffused with fiery red, the ventral surface fiery red. Fore wing fiery red, the costal edge blackish to beyond middle; antemedial line represented

Fig. 22.—*Enispa plutonis*, ♂. $\frac{3}{2}$.

by an inwardly oblique yellow striga from costa and some dark scales towards inner margin; a white point at lower angle of cell; postmedial line with oblique yellow striga from costa to vein 6 where it is bent outwards, then indistinct, dark, minutely waved, incurved below vein 4 and excurved at vein 1; some slight dark striæ on termen; cilia yellowish with black patches at tips at apex and middle. Hind wing yellowish suffused with fiery red; a terminal series of slight red striæ; cilia yellowish at base, red at tips; the underside yellowish tinged with red and irrorated with brown.

a small black discoidal spot, brown postmedial line dentate to near termen towards costa, then minutely dentate, and terminal series of black striæ.

Hab. Queensland, Peak Downs, 1 ♂, Brisbane, type † in Coll. Lucas, (*Turner*) 1 ♂; N. S. Wales, Sydney, type † ♂ *pyrrhantha* in Coll. Meyrick. *Exp.* 16 millim. Type † *diacaustus* in Coll. Turner.

Sect. VI. Both wings with the termen evenly curved.

A. Proboscis absent; palpi very slight; antennæ with strongly fasciculate cilia.

5044. Enispa albipuncta, n. sp.

♂. Head, thorax, and abdomen pale rufous tinged with blood-red, the vertex of head and shaft of antennæ towards base pure white; pectus, legs and ventral surface of abdomen whitish. Fore

Fig. 23.—*Enispa albipuncta*, ♂. ⅔.

wing pale rufous suffused with blood-red, the costa white; an antemedial deep-red point on vein 2 and pure white spot on inner margin; a deep-red discoidal point; postmedial line very indistinct, dark, slightly incurved below vein 4, with slight white marks beyond it on veins 3 and 2 and pure white spot at inner margin; traces of a pale sinuous subterminal line; a terminal series of deep red points. Hind wing pale rufous suffused with blood-red; a slight dark discoidal bar; traces of a diffused oblique dark post-medial line and of a pale sinuous subterminal line; a terminal series of deep red points; the underside paler.

Hab. S. Nigeria, Old Calabar (*Sampson*), 1 ♂ type. *Exp.* 18 millim.

B. Proboscis aborted, small; palpi moderate; antennæ ciliated.
  a. Head with the vertex, or a bar between antennæ, white.
    a^1. Both wings with the cilia yellow.
      a^2. Hind wing with waved white postmedial line.
        a^3. Fore wing with the termen pale olive ..... *erythroglauca.*
        b^3. Fore wing with the termen purplish red ..... *minuta.*
      b^2. Hind wing without waved white postmedial line.
        a^3. Fore wing with the costal area yellow ..... *flavicincta.*
        b^3. Fore wing with the costa white.
          a^4. Thorax and base of abdomen bright rufous. *albicosta.*
          b^4. Thorax and abdomen dark purple-red ..... *purpurascens.*
        b^3. Fore wing with the costa not yellow or white.
          a^4. Wings without black terminal line or band.

a^5. Both wings wholly suffused with fuscous brown ..... *rubrifuscaria*
b^5. Both wings with the terminal area suffused with fuscous brown ..... *nitrocrepa*.
c^5. Neither wing with fuscous suffusion ..... *rosea*.
b^4. Both wings with black terminal line or band.
a^5. Fore wing purplish pink mixed with whitish.
a^6. Fore wing with black terminal line.
a^7. Hind wing with slight red discoidal point ..... *parva*.
b^7. Hind wing with black discoidal spot *poliorhoda*.
a^6. Both wings with black terminal band . *atricincta*.
b^5. Fore wing rufous ..... *dilatata*.
b^1. Wings with the cilia not yellow.
a^2. Fore wing with the ground-colour white.
a^3. Fore wing white sparsely irrorated with rufous and black scales ..... *regulata*.
b^3. Fore wing more or less suffused with brown or fuscous.
a^4. Fore wing with the subterminal line defined by white on outer side ..... *algæ*.
b^4. Fore wing with the subterminal line not defined by white on outer side.
a^5. Fore wing with the white of postmedial area extending to termen at apex and middle ..... *lichenastata*.
b^5. Fore wing with the white of postmedial area not extending to termen at apex and middle.
a^6. Fore wing with the postmedial and subterminal lines acutely angled inwards at discal fold ..... *leprosa*.
b^6. Fore wing with the postmedial and subterminal lines not acutely angled inwards at discal fold ..... *leucogramma*.
b^2. Fore wing with the ground-colour not white.
a^3. Fore wing with the ante- and postmedial lines white.
a^4. Fore wing with the ground-colour pale rufous ..... *albolinearia*.
b^4. Fore wing with the ground-colour greyish fuscous ..... *albilineata*.
b^3. Fore wing with the ante- and postmedial lines not white.
a^4. Fore wing iron-grey ..... *griseipennis*.
b^4. Fore wing rufous.
a^5. Fore wing with ante- and postmedial white spots at costa.
a^6. Fore wing without postmedial white spot at inner margin ..... *quadricostaria*.
b^6. Fore wing with postmedial white spot at inner margin ..... [illegible].
b^5. Fore wing without ante- and postmedial white spots on costa.
a^6. Fore wing without black discoidal bar . *ænistis*.
b^6. Fore wing with black discoidal bar ... *roseata*.
b. Vertex of head blackish.
a^1. Both wings with pale postmedial line ..... *atriceps*.
b^1. Wings without pale postmedial line ..... *lycaugesia*.

5045. **Enispa erythroglauca**, n. sp. (Plate CXLIX. fig. 32.)

♀. Head and thorax pale olive-grey, the basal half of antennæ and a bar between them pure white; abdomen blood-red with some grey at base and extremity; pectus, legs, and ventral surface of abdomen white, the tibiæ and tarsi tinged with brown. Fore wing pale olive, suffused with deep blood-red except at base and on costal and terminal areas; a subbasal black point on costa; antemedial line indistinct, deep red with a black point at costa below which it is excurved; a small deep red discoidal spot; postmedial line deep red, very slightly defined on outer side by whitish and with black point at costa, oblique to vein 6, excurved to vein 4, then incurved and slightly excurved at vein 1, some white points with minute red streaks between them beyond it on costa; subterminal line whitish minutely waved and slightly excurved at middle; cilia yellowish. Hind wing deep blood-red slightly irrorated with silvery white, the costal area white towards base; a diffused white antemedial band; a deep red discoidal spot; a sinuous white postmedial line excurved at middle; termen and cilia yellowish; the underside white slightly irrorated with fuscous, a black discoidal lunule, curved postmedial line slightly incurved at discal fold, the terminal area suffused with black with a whitish subterminal line interrupted at middle.

Hab. Madras, Horsleykonda (*Campbell*), 1 ♀ type. *Exp.* 14 millim.

Larva. Pale greenish; no ventral claspers. Feeds on a minute Lichen and covers itself with fragments of this stuck on to a fairly tough pent-roof web.

Cocoon. In the form of a small Lichen-covered ball suspended by a fine thread: 4. (*W. H. Campbell.*)

5046. **Enispa minuta.**

Hyria minuta, Hmpsn. Ill. Het. B. M. ix. p. 150, pl. 169. f. 18 (1893); id. Moths Ind. ii. p. 353.

♂. Head, thorax, and abdomen pale purplish red, the vertex of head and shaft of antennæ white; legs whitish. Fore wing pale purplish red with a silky gloss, the costal area paler; antemedial and medial black points on costa, the latter with a slight oblique dark striga from it; postmedial line with black point on costa, slight and oblique to vein 6, then reduced to faint points; the apical part of costa with series of slight black points; a fine blood-red terminal line; cilia yellowish. Hind wing pale purplish red with a silvery gloss; a blood-red discoidal bar; a waved yellowish white medial line; a fine blood-red terminal line; cilia yellowish; the underside paler.

Hab. Ceylon, Pundaloya (*Green*), 1 ♂ type. *Exp.* 14 millim.

5047. **Enispa flavicincta**, n. sp. (Plate CL. fig. 1.)

♀. Head and thorax pale yellow with a silvery gloss; palpi, frons, antennæ, and legs tinged with brown; abdomen fuscous brown, yellowish at base, the ventral surface pale yellow. Fore wing purplish brown, the costal area and termen yellow with a silvery gloss; a black discoidal point; faint traces of a minutely waved curved whitish postmedial line; a terminal series of black points; cilia yellow. Hind wing purplish brown irrorated with black and silvery scales: a blackish discoidal spot and traces of a pale postmedial line; termen yellowish with a series of black points; cilia yellow.

Hab. Singapore (*Ridley*), 1 ♀ type. *Exp.* 14 millim.

5048. **Enispa albicosta**, n. sp. (Plate CL. fig. 2.)

♂. Head pale rufous, the vertex whitish; thorax and base of abdomen bright rufous, the terminal part of abdomen black with the anal tuft brownish; pectus, legs, and ventral surface of abdomen whitish. Fore wing pale rufous tinged with crimson at base, the costal area white; a faint crimson medial line, oblique towards costa; a small black discoidal spot; a faint crimson subterminal line, incurved below vein 5; a narrow terminal deep crimson band; cilia yellowish tinged with crimson. Hind wing pale rufous, the terminal area tinged with crimson; a black discoidal spot with diffused band from it to inner margin; a slightly sinuous black postmedial line: the termen deep crimson; cilia yellowish tinged with crimson; the underside whitish tinged with brown.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♂ type. *Exp.* 16 millim.

5049. **Enispa purpurascens.** (Plate CL. fig. 3.)

Micræschus purpurascens, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 652 (1907).

♂. Head, thorax, and abdomen dark purple-red, the vertex of head and base of shaft of antennæ pure white; hind legs, ventral surface of abdomen, and anal tuft yellowish. Fore wing deep purple-red with a silvery gloss, the costal edge white except at base and middle, the postmedial area rather paler and the termen and cilia bright yellow: traces of an erect minutely waved dark antemedial line and of a slight discoidal lunule; postmedial line more distinct, very oblique from costa to vein 6, then minutely waved, incurved below vein 4. Hind wing deep purple-red, the postmedial area somewhat paler and the termen and cilia bright yellow; postmedial line dark, excurved at middle, then incurved; the underside paler.

Hab. Ceylon, Kandy (*Pole*), 1 ♂ type. *Exp.* 16 millim.

*5050. Enispa niveiceps. (Plate CL. fig. 4.)

Micræschus niveiceps, Turner, P. Linn. Soc. N. S. W. xxxiv. p. 351 (1909).

♂. Palpi pink; frons red-brown; vertex of head and shaft of antennæ white; thorax and abdomen pink; pectus, legs, and ventral surface of abdomen white. Fore wing pink, the costa and terminal half suffused with blackish and irrorated with some silvery scales; subbasal line represented by a pink striga from costa; traces of a sinuous pink antemedial line; a black discoidal bar; postmedial line very indistinct, excurved from below costa to vein 3, then incurved, defined on outer side by some whitish towards inner margin; a fine black terminal line; cilia orange tinged with pink. Hind wing pink, the terminal area suffused with blackish; an indistinct oblique pink antemedial line and traces of a curved postmedial line; a fine black terminal line; cilia orange tinged with pink; the underside whitish irrorated with red-brown, the terminal area tinged with fuscous.

Hab. Queensland, Kuranda (*Dodd*), type † ♂ in Coll. Turner. *Exp.* 16 millim.

5051. Enispa rubrifuscaria. (Plate CL. fig. 5.)

Chrysocraspeda rubrifuscaria, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 652 (1904).

♀. Head, thorax, and abdomen deep purplish red suffused with brown; vertex of head and shaft of antennæ towards base white; pectus, legs, and ventral surface of abdomen paler. Fore wing deep purplish red suffused with fuscous brown, especially on terminal area; an indistinct minutely waved postmedial line; the termen and cilia orange-yellow with some deep red between it and the dark area. Hind wing deep purplish red suffused with fuscous brown especially on terminal area; traces of a minutely waved postmedial line; the termen and cilia orange-yellow with some deep red between it and the dark area; the underside whitish suffused and irrorated with brown.

Hab. Ceylon, Maskeliya (*Mackwood*, *Pole*), 2 ♀ type. *Exp.* 20 millim.

5052. Enispa rosea.

Hyria rosea, Hmpsn. Ill. Het. B. M. ix. p. 150, pl. 169, f. 3 (1893); id. Moths Ind. ii. p. 353.

♀. Head, thorax, and abdomen deep purplish pink; vertex of head and shaft of antennæ towards base pure white; pectus, legs, and ventral surface of abdomen whitish suffused with fuscous brown. Fore wing deep purplish pink with some darker irroration, the terminal area with a whitish tinge, the costal edge pinker and the termen deep purple; traces of an antemedial line and of a slightly waved medial line; a dark discoidal spot; postmedial line distinct,

minutely waved, excurved from below costa to vein 4, then incurved; cilia orange-yellow, deep red at base and apex. Hind wing deep purplish pink, the terminal half with a whitish tinge; a slight dark discoidal spot; postmedial line slightly waved and excurved at middle; termen deep purple; cilia orange-yellow, deep red at base; the underside purplish tinged with grey.

Hab. Ceylon, Pundaloya (*Green*), 1 ♀ type, Maskeliya (*Pole*), 1 ♀. *Exp.* 22 millim.

5053. Enispa parva. (Plate CL. fig. 6.)

Micræschus parva, Beth.-Baker, Nov. Zool. xiii. p. 217 (1906).

♂. Palpi and frons rufous; vertex of head and base of antennæ white; tegulæ ochreous; thorax and abdomen whitish tinged with pink. Fore wing whitish, tinged and irrorated with pink, the costa dark blood-red with some silvery scales; a slight curved red antemedial line; a dark red discoidal lunule; postmedial line slight, excurved to vein 4, then incurved; termen blackish with some silvery scales; cilia whitish tinged with pink. Hind wing whitish, tinged and irrorated with pink; a slight red discoidal point; traces of diffused red postmedial and subterminal lines; termen blackish with a silvery gloss; cilia whitish tinged with pink; the underside whitish irrorated with pink.

Hab. Br. New Guinea, Aroa R. (*Meek*), type † ♂ in Coll. Rothschild; Queensland, Mackay (*Lower*), 1 ♂. *Exp.* 12 millim.

5054. Enispa poliorhoda. (Plate CL. fig. 7.)

Micræschus poliorhoda, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 652 (1907).

Head, thorax, and abdomen pale purplish brown mixed with whitish; vertex of head and shaft of antennæ towards base pure white; pectus, legs, and ventral surface of abdomen ochreous white. Fore wing pale purplish pink mixed with whitish and irrorated with silvery and some deep purple scales, the costa rather redder, the termen deep purple irrorated with silver; traces of an inwardly oblique dark antemedial line; traces of a waved medial line from cell to inner margin; postmedial line indistinct, oblique from costa to vein 6, then minutely waved, some yellowish points beyond it on costa; a blackish terminal line; cilia orange-yellow. Hind wing pale purplish pink mixed with whitish and irrorated with silvery and some deep purple scales, the termen deep purple irrorated with silver; a blackish discoidal spot and rather diffused postmedial line slightly excurved at middle; a blackish terminal line; cilia orange-yellow with some red scales at base; the underside whitish with dark discoidal bar and postmedial line.

Hab. Ceylon, Kandy (*Pole*), 1 ♂ type, Gampola (*Mackwood*), 1 ♀. N. Centr. Province (*Pole*), 1 ♂. *Exp.* 14 millim.

5055. Enispa atricincta. (Plate CL. fig. 8.)

Micræschus atricincta, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 651 (1907).

Head and tegulæ brown, the vertex of head and shaft of antennæ towards base white; thorax and abdomen pale purplish pink; pectus, legs, and ventral surface of abdomen ochreous white. Fore wing pale purplish pink mixed with whitish, the costa and termen blackish; traces of an inwardly oblique antemedial line with dark points on the veins; a dark discoidal bar; postmedial line punctiform, oblique from costa to discal fold, then incurved, an indistinct whitish subterminal line defined on inner side by dark scales and with dark patch before it at costa with some white points on it, somewhat dentate, excurved at middle; cilia orange-yellow. Hind wing pale purplish pink mixed with whitish; a slight blackish discoidal bar; postmedial line defined on outer side by whitish and with some black points on it towards inner margin, excurved below costa and at middle; a terminal black band; cilia orange-yellow; the underside whitish irrorated with brown, a slight discoidal spot and diffused curved postmedial and subterminal lines.

Hab. Ceylon, Maskeliya (*Pole, de Mowbray*), 1 ♂, 2 ♀, type. *Exp.* 16 millim.

5056. Enispa oblataria.

Hyria oblataria, Wlk. xxii. 665 (1861); Moore, Lep. Ceyl. iii. p. 449, pl. 200. f. 6; Hmpsn. Moths Ind. ii. p. 352.
Homodes violacea, Lucas, Pr. Linn. Soc. N. S. W. (2) viii. p. 144 (1893).

Head, thorax, and abdomen rufous; vertex of head and shaft of antennæ towards base pure white; pectus, legs, and ventral surface of abdomen ochreous white. Fore wing rufous irrorated with a few black scales, the costa and termen blackish with a silvery gloss; antemedial line slight, dark, defined on inner side by whitish, inwardly oblique; a black discoidal point; postmedial line slight,

Fig. 24.—*Enispa oblataria*, ♂. ¾.

dark, defined on outer side by whitish, oblique from costa to vein 6, incurved and minutely waved below vein 4, some pale points beyond it on costa; subterminal line indistinct, pale, waved, somewhat excurved at middle; cilia yellowish tinged with red. Hind wing rufous irrorated with a few dark scales; a faint dark discoidal spot and whitish postmedial line excurved at middle; faint traces of a

pale subterminal line; a black terminal line glossed with silver; cilia yellowish, blood-red at base, the underside ochreous white slightly irrorated with brown, a brown discoidal spot and minutely waved, curved postmedial line.

Ab. 1. Fore wing with the medial and postmedial areas deeper red; hind wing with the basal half deeper red.

Ab. 2. Fore and hind wings with black patches on inner medial areas.

Hab. Ceylon, Colombo (*Nietner*), 2 ♂ type, Pundaloya (*Green*), 7 ♂, 4 ♀; Queensland, Brisbane (*Turner*), 1 ♂, 1 ♀. *Exp.* 16–20 millim.

Larva. Hmpsn. Ill. Het. B. M. ix. p. 126, pl. 127. f. 17; Lucas, Pr. Linn. Soc. N. S. W. (2) viii. p. 145 (1893).

Smooth and cylindrical, covered with comminuted lichen, arranged in tufts on certain somites.

Cocoon covered with lichen and suspended by a cable of silk. Food-plants: Lichens.

5057. Enispa regulata, (Plate CL. fig. 9.)

Acidalia regulata, Wlk. xxiii. 794 (1861); Hmpsn. Moths Ind. ii. p. 353.

♂. Head and thorax white, the palpi, frons, antennæ, dorsum of thorax, and legs tinged with rufous; abdomen white with some black scales at base and slight dorsal black segmental lines. Fore wing white sparsely irrorated with rufous and large black scales, the costa rufous with a few silvery scales; a black point at base of cell and some black points on basal part of costa; a diffused black band from costa before middle to inner margin near base; medial line blackish, angled outwards on subcostal nervure and in submedian fold and oblique towards costa and inner margin; a round black discoidal spot; postmedial line blackish, bent outwards below costa, angled inwards in discal fold, incurved below vein 4 and angled inwards in submedian fold; a slight minutely dentate blackish subterminal line, somewhat excurved below vein 7 and at middle; cilia deep rufous, yellowish at tips. Hind wing white sparsely irrorated with rufous and large black scales; a black mark at base of inner margin; traces of an irregular black subbasal line except on costal area; a small round black discoidal spot; postmedial line excurved below costa and at middle and angled inwards at discal and submedian folds; subterminal line slight, black, angled outwards at discal fold, then waved; a terminal series of slight rufous striæ; cilia deep rufous, yellowish at base and tips; the underside white slightly irrorated with rufous and with traces of postmedial and subterminal lines.

Hab. Ceylon, Puttalam (*Mackwood*, *Pole*), 6 ♂; Burma, Moulmein (*Clerk*), 1 ♂ type. *Exp.* 12–14 millim.

5058. Enispa algæ, n. sp. (Plate CL. fig. 10.)

♂. Head and thorax white, the palpi, frons, antennæ, upper edges of patagia, and metathorax rufous; pectus and legs tinged with

rufous; abdomen rufous irrorated with black, the ventral surface whitish. Fore wing white, suffused in parts with rufous, especially on inner, basal, and medial areas, and sparsely irrorated with black: subbasal and antemedial small black spots on costa; medial line blackish, oblique from costa to the small round black discoidal spot, then inwardly oblique and dentate; postmedial line black, slightly bent outwards below costa, then dentate, incurved below vein 4 and angled outwards at vein 1; subterminal line blackish with some red-brown suffusion on inner side, dentate; a rather diffused maculate black-brown terminal line from below apex to above tornus, confluent with the subterminal line at discal fold and below vein 2; cilia white tinged with rufous and mixed with black-brown. Hind wing rufous with slight dark irroration; a round black discoidal spot; postmedial line black slightly defined on outer side by white except towards costa, irregularly dentate; a terminal series of black points; the underside white tinged with rufous, a blackish discoidal spot and terminal series of points.

Hab. Madras, Belgaum (*Watson*), 4 ♂ type. *Exp.* 16 millim.

5059. **Enispa lichenostola**, n. sp. (Plate CL. fig. 11).

♂. Head white irrorated with black; palpi brown; antennæ black; thorax rufous; pectus and legs white mixed with fuscous, the tarsi black slightly ringed with white; abdomen white, dorsally suffused with black, ventrally irrorated with fuscous. Fore wing white irrorated with black, the medial area suffused with fuscous; blackish basal and subbasal marks on costa; antemedial line black, waved; a blackish discoidal lunule: postmedial line black, dentate, oblique to vein 4, then strongly angled inwards in submedian fold; subterminal line only defined by a blackish patch before it on costal area and reddish brown patches beyond it at middle and tornus; a waved black terminal line; cilia rufous. Hind wing rufous irrorated with black: a fine blackish medial line defined by whitish on outer side, excurved at middle and somewhat dentate; the post-medial area slightly mottled with white at middle; a fine waved black terminal line; cilia rufous; the underside white irrorated with fuscous, a slight discoidal point and diffused curved post-medial line.

Hab. Madras, Horsleykonda (*Campbell*), 1 ♂ type. *Exp.* 16 millim.

5060. **Enispa leprosa**, n. sp. (Plate CL. fig. 12.)

♀. Head, thorax, and abdomen whitish tinged with reddish brown, the pectus, legs, and ventral surface of abdomen whiter. Fore wing whitish suffused in parts with pale reddish brown and sparsely irrorated with black, the costa and termen pale reddish brown; a slight antemedial blackish mark on costa and diffused patch of black scales on discocellulars; postmedial line diffused, blackish, oblique from costa to vein 6, angled inwards in discal fold,

incurved and slightly waved below vein 4, some slight whitish points beyond it on costa with minute brown streaks between them; subterminal line slight, blackish, dentate, angled inwards at discal and submedian folds; a terminal series of small black spots; cilia reddish brown. Hind wing reddish brown thickly irrorated with black; an indistinct blackish discoidal spot; a diffused dentate blackish postmedial line slightly defined on outer side by white except towards costa; traces of a diffused dark subterminal line; a terminal series of slight blackish striæ; the underside whitish tinged with brown, an indistinct diffused brown postmedial line.

Hab. Sikhim (*Dudgeon*), 1 ♀ type. *Exp.* 18 millim.

5061. **Enispa leucogramma**, n. sp. (Plate CL. fig. 13.)

♂. Head, thorax, and abdomen white tinged with rufous, the vertex of head pure white, the antennæ white ringed with brown. Fore wing white, suffused with rufous and slightly irrorated with fuscous and silvery scales; traces of a waved white antemedial line; a diffused dark discoidal spot; postmedial line white, oblique from costa to vein 6, then dentate, some slight dark streaks with white points between them beyond it on costa; a dentate white subterminal line; a terminal series of small black spots. Hind wing white suffused with rufous and slightly irrorated with fuscous and silvery scales; a diffused blackish discoidal bar; postmedial line indistinct, blackish defined on outer side by white, angled outwards at vein 4; traces of a minutely waved whitish subterminal line; a terminal series of slight blackish spots; cilia with a fine white line at base; the underside white suffused and irrorated with brown, an indistinct brownish discoidal spot, diffused curved postmedial line and subterminal shade.

Hab. Bhután (*Dudgeon*), 1 ♂ type. *Exp.* 16 millim.

5062. **Enispa albolinearia.** (Plate CL. fig. 14.)

Pomasia albolinearia, Leech, A. M. N. H. (6) xix. p. 679 (1897).

Head, thorax, and abdomen white tinged with rufous, the palpi and frons darker rufous. Fore wing pale rufous irrorated with silver and a few black scales; an ill-defined curved antemedial white band; a diffused blackish discoidal spot; postmedial line represented by a few black scales with a diffused white band beyond it, oblique from costa to vein 6, angled inwards at discal fold, incurved and waved below vein 4 and angled outwards at vein 1, some slight white points beyond it on costa; a faint waved white subterminal line; a terminal series of slight black lunules. Hind wing white suffused with pale rufous and irrorated with silvery and black scales; a black discoidal striga; postmedial line slight, black defined on outer side by white, incurved at discal fold and below vein 4; a waved white subterminal line; a terminal series of small black lunules defined on inner side by white; the under-

side white faintly irrorated with brown, a slight discoidal spot and faint curved postmedial line.

Hab. W. China, Chang-yang (*Pratt*), 1 ♂ type, Moupin (*Kricheldorf*), 1 ♂, 1 ♀. *Exp.* 22 millim.

5063. Enispa albilineata. (Plate CL. fig. 15.)

Pachylepis albilineata, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 448 (1897).

Palpi and frons rufous, the vertex of head white, the antennæ white ringed with black; thorax and abdomen whitish tinged with rufous; pectus, legs, and ventral surface of abdomen white suffused with brown, the tarsi brown ringed with white. Fore wing greyish fuscous irrorated with silvery scales, the costal edge blackish; a subbasal white striga from costa; antemedial line white, waved, somewhat inwardly oblique; a black discoidal striga; postmedial line white, oblique from costa to vein 6, incurved at discal fold, incurved and waved below vein 4 and bent outwards at vein 1, some white points beyond it on costa; an indistinct slightly waved white subterminal line, incurved at discal fold and below vein 3; a fine waved black terminal line with small spots in the interspaces and white points beyond them at base of cilia. Hind wing greyish fuscous irrorated with silvery scales; a slight black discoidal lunule; postmedial line white, excurved below costa, at middle and towards inner margin; an indistinct minutely waved whitish subterminal line; a fine waved black terminal line with some whitish beyond it at base of cilia; the underside whitish tinged and irrorated with fuscous, a dark discoidal lunule, diffused curved postmedial line and subterminal shade.

Hab. Punjab, Dharmsála (*Hocking*), 1 ♂, 1 ♀, Chakrata (*C. H. Ward*), 1 ♂; Assam, Khásis, 1 ♀ type. *Exp.* 22 millim.

5064. Enispa griseipennis.

Hyria griseipennis, Hmpsn. Ill. Het. B. M. viii. p. 124, pl. 153. fig. 11 (1891).

Palpi and frons black-brown; vertex of head and shaft of antennæ towards base pure white; thorax iron-grey; abdomen iron-grey dorsally suffused with black. Fore wing iron-grey tinged with white and irrorated with a few black scales, the costa black towards base; antemedial line represented by an inwardly oblique black bar from costa, then by slight points on the veins; a slight black discoidal point; postmedial line black, oblique from costa to vein 6, then reduced to points and oblique below vein 4, traces of a dark subterminal line incurved below vein 3, a series of small black terminal spots, the costa towards apex and cilia reddish, the latter with a strong black line near base. Hind wing iron-grey sparsely irrorated with black, the area from near base to postmedial line, except on costal area, blood-red; a slight black discoidal point; postmedial line black slightly defined on outer side

by whitish, somewhat dentate and excurved at middle; subterminal line only defined by faint rufous suffusion before it, curved; a terminal series of black points; cilia red with a strong blackish line near base; the underside bluish grey slightly irrorated with brown, a dark discoidal spot and rather diffused curved sinuous postmedial line.

Hab. Madras, Nilgiris, Coonoor (*Lindsay, Cardew*), 4 ♂, 5 ♀, type. *Exp.* 18–20 millim.

*5065. Enispa quadricostaria.

Hyria quadricostaria, Wlk. xxii. 667 (1861); Swinh. Cat. Het. Mus. Oxon. ii. p. 69.

Head, thorax, and abdomen rufous, whitish tinged with rufous below; the vertex of head white. Fore wing rufous slightly irrorated with black; an elliptical white subbasal patch on costa before the very indistinct curved blackish antemedial line; an indistinct blackish discoidal spot; a triangular white spot on costa beyond the indistinct blackish postmedial line which is oblique towards costa, then dentate; a terminal series of minute black points. Hind wing rufous slightly irrorated with black, with traces of dentate blackish ante- and postmedial lines and pale waved subterminal line; a terminal series of black points.

Hab. Borneo, Sarawak (*Wallace*), type † in Mus. Oxon with only the head, thorax, and fore wing remaining. *Exp.* 16 millim.

5066. Enispa leucosticta, n. sp. (Plate CL. fig. 16.)

♀. Head, thorax, and abdomen pale rufous, the vertex of head and shaft of antennæ towards base pure white. Fore wing pale rufous irrorated with a few silvery scales; an antemedial white spot on costa; a postmedial white spot on costa with the faint postmedial line arising from it defined by whitish on outer side, forming a small white spot at inner margin and slightly incurved below vein 4. Hind wing pale rufous irrorated with a few silvery scales; a slight whitish postmedial mark on costa and point on inner margin; the underside whitish irrorated and suffused with rufous, a slight discoidal striga and diffused curved postmedial line.

Hab. Japan, Yokohama (*Pryer*), 1 ♂ type. *Exp.* 18 millim.

5067. Enispa œnistis. (Plate CL. fig. 17.)

Micræschus oinistis, Hmpsn. J. Bomb. Soc. Nat. Hist. xvii. p. 652 (1907).

♂. Head, thorax, and abdomen silvery grey suffused with pale rufous; the palpi and frons rather deeper rufous; the shaft of antennæ towards base and a point between them white. Fore wing silvery grey suffused with rufous and irrorated with fuscous; antemedial line represented by an oblique dark striga from costa, then almost obsolete; a slight dark discoidal point with more prominent blackish irroration round it; postmedial line indistinct,

dark, oblique from costa to vein 6, then rather punctiform; an indistinct slightly waved dark subterminal line, somewhat excurved at middle; apical area suffused with fuscous. Hind wing purplish rufous irrorated with silvery scales and slightly with fuscous; a faint crimson discoidal bar and traces of pale postmedial and subterminal lines; the underside white slightly tinged with rufous and with indistinct diffused brown postmedial and subterminal lines.

Hab. Ceylon, Yatiyantota (*Green*), 1 ♂ type, Kandy (*Pole*), 1 ♂. *Exp.* 14 millim.

5068. **Enispa roseata.** (Plate CL. fig. 18.)

Pachylepis roseata, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 206 (1902).

♂. Head black, the vertex white; antennæ and thorax pale rufous; fore tibiæ blackish in front, the tarsi blackish ringed with white; abdomen ochreous white suffused with fuscous. Fore wing ochreous white suffused with blood-red; the costa black to near apex, interrupted subbasally by a pale mark and by traces of a pale curved antemedial line; an oblique black discoidal bar; postmedial line very indistinct, pale, excurved from costa to vein 4 towards termen, then oblique, a truncate conical black patch beyond it on costal area with some white points on the costa, a black point before it on inner margin and a patch beyond it at tornus; a terminal series of black points; cilia ochreous mixed with some black. Hind wing ochreous white tinged with brown and slightly irrorated with blackish; an oblique black discoidal bar; postmedial line indistinct, dark defined on outer side by white, excurved at median nervules, some black before and beyond it on inner margin; traces of a minutely waved whitish subterminal line; a terminal series of black points; the underside ochreous white slightly irrorated with blackish, a blackish discoidal point and diffused subterminal line.

Hab. Punjab, Simla (*Pilcher*), 1 ♂ type. *Exp.* 20 millim.

5069. **Enispa atriceps**, n. sp. (Plate CL. fig. 19.)

♂. Head and base of tegulæ black-brown; thorax and abdomen whitish tinged with rufous, the latter with faint rufous bands. Fore wing yellowish white suffused with pale rufous; two black discoidal points; postmedial line whitish slightly defined on each side by rufous, oblique and slightly excurved, some black points beyond it on costa; subterminal line pale, defined on outer side by black striæ, angled outwards at middle; a pale line at base of cilia. Hind wing yellowish white suffused with pale rufous; two black discoidal spots, the upper one small; postmedial line pale slightly defined on inner side by black and with black spot before it at inner margin, excurved below costa; an indistinct pale minutely dentate subterminal line with series of small black lunules on its outer edge; a whitish line at base of cilia; the underside brownish

white, a blackish discoidal bar, diffused brownish postmedial line, and lunulate fuscous subterminal shade.

Hab. Gold Coast, Aburi (*Johnstone*), 1 ♂; S. Nigeria, Old Calabar (*Sampson*), 1 ♂ type. *Exp.* 18 millim.

5070. **Enispa lycaugesia**, n. sp. (Plate CL. fig. 20.)

♀. Head dark brown; thorax and abdomen pale brownish ochreous; fore legs browner. Fore wing pale brownish ochreous; a blackish point at lower angle of cell; a subterminal series of slight blackish spots in the interspaces. Hind wing pale brownish ochreous tinged with rufous and slightly irrorated with fuscous except at base; a faint diffused darker medial shade with fuscous point on it at lower angle of cell; a subterminal series of slight fuscous spots; the underside pale brownish ochreous.

Hab. S. Nigeria, Old Calabar (*Crompton*), 2 ♀ type. *Exp.* 20 millim.

Genus **MICRACONTIA**.

Type.

Micracontia, Hmpsn. Trans. Ent. Soc. 1895, p. 301..... *batisella*.

Proboscis aborted, minute; palpi obliquely porrect, extending to well beyond frons, the 2nd joint fringed with hair above towards extremity, the 3rd short; frons smooth; eyes large, round; antennæ of male with long cilia; thorax clothed chiefly with scales and without crests; tibiæ smoothly scaled, the spurs long; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5071. **Micracontia batisella.**

Micracontia batisella, Hmpsn. Trans. Ent. Soc. 1895, p. 302; id. Moths Ind. iv. p. 521.

♂. Head, thorax, and abdomen rufous with an olive tinge, the vertex of head and shaft of antennæ towards base pure white; pectus, legs, and ventral surface of abdomen whitish. Fore wing

Fig. 25.—*Micracontia batisella*, ♂. ♀.

rufous with an olive tinge and slight silvery irroration; a subbasal white point on costa; a broad medial white band defined at sides by some blood-red scales, constricted at middle, enclosing a rufous

patch on middle of costa, a rufous spot at upper angle of cell, some rufous irroration in and below cell, and a small blood-red annulus above inner margin; a white apical patch with two small triangular blood-red subterminal marks on it at veins 7, 6, the faint whitish subterminal line arising from its lower extremity and slightly excurved at middle; a dark terminal line with a series of black points on it. Hind wing rufous with an olive tinge and slight silvery irroration; an indistinct white medial band with some blood-red scales on its edges, slightly excurved at middle; a dark terminal line: the underside white, the terminal half tinged with brown, a brownish discoidal striga.

Hab. Madras (*Watson*), 1 ♂; Ceylon, Hambantota (*Pole*), 3 ♂ type. *Exp.* 12 millim.

Genus **NIACCABA.**

Type.

Niaccaba, Wlk. xxxiv. 1272 (1865)..... *sumptualis.*

Proboscis fully developed; palpi upturned well in front of frons, slender, the 2nd joint reaching to about vertex of head, the 3rd short; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed chiefly with scales and without crests; tibiæ smoothly scaled, the spurs long; abdomen without crests. Fore wing with the apex produced and acute, the termen excised below apex, excurved at middle and very oblique towards tornus; veins 3, 4 stalked; 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8 and 10 stalked, 9 absent; 11 from cell. Hind wing with the apical part of termen lobed; the termen nearly straight from discal fold to tornus; veins 3, 4 stalked; 5 nearly fully developed from just below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5072. **Niaccaba sumptualis.**

Niaccaba sumptualis, Wlk. xxxiv. 1272 (1865); Hmpsn. Ill. Het. B. M. ix. p. 161, pl. 171. f. 3; id. Moths Ind. iii. p. 65.

♂. Head, thorax, and abdomen pale grey-brown, the vertex of head white; pectus, legs, and ventral surface of abdomen whitish. Fore wing pale grey-brown, the costa tinged with blood-red towards base; a black subbasal point on costa; an indistinct inwardly

Fig. 26.—*Niaccaba sumptualis*, ♂. ¾.

oblique red-brown antemedial line with black point on costa; a black point on middle of costa, with an oblique rather diffused red-brown line from below it to inner margin at antemedial line; traces of a red-brown postmedial line from vein 6 to inner margin, oblique below vein 4; the apical part of costa with slight

alternating white and blackish streaks; termen blood-red; cilia blood-red with a fine whitish line at base. Hind wing pale grey-brown, the terminal area suffused and irrorated with blood-red; minutely waved blood-red subbasal, medial, postmedial, and subterminal lines; a quadrate semihyaline subapical spot with slight points above and below it; cilia blood-red with a fine pale line at base; the underside pale brownish with sinuous medial and postmedial dark lines.

Hab. Ceylon (*Nietner*), 1 ♂ type. *Exp.* 14 millim.

Genus **EUBLEMMA**.

	Type.
Eublemma, Hübn. Verz. p. 256 (1827)	*suava.*
Porphyrinia, Hübn. Verz. p. 256 (1827)	*purpurina.*
Eromene, Hübn. Verz. p. 256 (1827)	*ostrina.*
Trothisa, Hübn. Verz. p. 256 (1827)	*noctualis.*
Ethetis, Hübn. Verz. p. 257 (1827)	*pura.*
Calymma, Hübn. Verz. p. 281 (1827)	*communimacula.*
Hæmerosia, Boisd. Gen. & Ind. Meth. p. 163 (1840)	*communimacula.*
Microphisa, Boisd. Gen. & Ind. Meth. p. 170 (1840)	*arcuinna.*
Micra, Guen. Ann. Soc. Ent. Fr. x. p. 224 (1841); nec Zett. Dipt. 1840	*parvimacula.*
Leptosia, Guen. Ann. Soc. Ent. Fr. x. p. 225 (1841)	*velox.*
Oratoscelis, Guen. Ann. Soc. Ent. Fr. x. p. 231 (1841)	*communimacula.*
Glaphyra, Guen. Ann. Soc. Ent. Fr. x. p. 232 (1841)	*parallela.*
Microphysa, Guen. Ann. Soc. Ent. Fr. x. p. 233 (1841)	*arcuinna.*
Thalpochares, Led. Noct. Eur. p. 184 (1854)	*arcuinna.*
Silda, Wlk. xxvii. 131 (1863)	*truncatalis.*
Autoba, Wlk. Journ. Linn. Soc., Zool. vii. p. 57 (1864)	*versicolora.*
Vescisa, Wlk. Journ. Linn. Soc., Zool. vii. p. 191 (1864)	*commoda.*
Mestleta, Wlk. xxxiii. 829 (1865)	*abrupta.*
Zelaza, Wlk. xxxiv. 1202 (1865)	*cuneiplex.*
Matæomera, Butl. Trans. Ent. Soc. 1886, p. 418	*dubia.*
Eumestleta, Butl. Entom. xxv. p. 189 (1892)	*flammicincta.*
Eublemmoides, Beth.-Baker, Nov. Zool. xiii. p. 212 (1906)	*luteata.*
Anthophila, Hübn. Tent. ined., nec Ill. Hym. 1804, & Triet. Lep. 1826	*purpurina.*

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching to about middle of frons or to vertex of head and rather slightly scaled, the 3rd short or moderate; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ typically slightly fringed with hair, sometimes strongly; abdomen without crests. Fore wing typically with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell or 3, 4 rarely stalked; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell; the retinaculum, slight bar-shaped, covered by a tuft of hair. Hind wing with the cell from one-third to one-half length of wing; veins 3, 4 from angle of cell or stalked; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only or to towards middle.

Sect. I. Both wings with the termen angled at veins 6 and 4; hind wing with the cell about one-third length of wing and veins 3, 4 shortly stalked.

A. Both wings with the termen acutely angled at veins 6 and 4, then crenulate to tornus.

5073. Eublemma crenulata.

Raparna crenulata, Hmpsn. Moths Ind. iv. p. 538 (1896).

♀. Head and tegulæ bright rufous; thorax purple-grey with a few black scales; palpi with white ring at extremity of 2nd joint; pectus and legs whitish irrorated with brown, the tarsi fuscous ringed with white; abdomen purple-grey with subdorsal black points on 2nd segment, the ventral surface whitish with fuscous band at extremity. Fore wing purple-grey irrorated with a few black scales; two black points in cell near base; antemedial line indistinct, blackish, excurved from below costa to submedian fold, then incurved; a slight black discoidal point; medial line indistinctly double, the inner line strong towards costa and on inner area, acutely angled outwards below costa to far beyond the cell, then oblique and minutely waved; postmedial line double and excurved

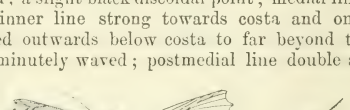

Fig. 27.—*Eublemma crenulata*, ♀. $\frac{3}{2}$.

below costa, then single, oblique, dentate and produced to points on the veins; subterminal line represented by slight diffused fuscous marks towards costa and inner margin; a terminal series of black points. Hind wing purplish grey, a blackish discoidal lunule; medial line blackish defined on outer side by yellowish white followed on inner half by deep red irroration; postmedial line punctiform with a series of black points beyond it on the veins; traces of a whitish subterminal line with slight dark points on its outer edge and a strong black bar from below vein 3 to tornus; a terminal series of black points. Underside of fore wing with the disk tinged with red; hind wing with the basal area tinged with red and irrorated with black, the medial and postmedial lines blacker.

Hab. Bhután, 3,500′ (*Dudgeon*), 1 ♀ type. *Exp.* 28 millim.

B. (*Vescisa*). Both wings with the termen much less strongly angled at veins 6 and 4, then straight to tornus.

a. Hind wing with oblique black bar at tornus ..... *commoda*.
b. Hind wing with two black spots at tornus ..... *digona*.

5074. Eublemma commoda.

Vescisa commoda, Wlk. Journ. Linn. Soc., Zool. vii. p. 191 (1864).

Head and tegulæ rufous; thorax and abdomen pale purplish grey, the latter irrorated with rufous and with slight whitish segmental lines except towards base; pectus, base of legs, and

ventral surface of abdomen white irrorated with fuscous, the tarsi brown ringed with white. Fore wing pale purplish grey; subbasal line represented by black points on costa and in cell; antemedial line blackish at costa, then indistinct, incurved in cell and excurved below it; slight dark points in middle of cell and on discocellulars; medial line represented by double oblique blackish striæ from costa and a faint double oblique line from lower angle of cell to inner margin; postmedial line slight, excurved below costa, then oblique, dentate and produced to black points on the veins, some rufous

Fig. 28.—*Eublemma commoda*, ♂. ⅔.

suffusion beyond it on costal area with some whitish points on costa and a minute wedge-shaped whitish mark below the costa; a subterminal series of black points: a punctiform rufous terminal line; cilia with a fine yellowish line at base. Hind wing pale purplish grey; a dark discoidal point; a band of rufous and yellow irroration from discal fold to inner margin before the slight dentate postmedial line produced to black points on the veins; traces of a pale subterminal line with series of black points on its outer edge and black bar before it from vein 2 to tornus; a punctiform rufous terminal line; cilia with a fine yellowish line at base, the underside slightly irrorated with black, the basal area whitish with some blackish marks on it, an indistinct double minutely waved medial line with black marks on it at costa and towards tornus, a minutely dentate postmedial line produced to black points on the veins, a terminal series of black points.

Hab. Singapore (*Ridley*), 1 ♀; Borneo, Sarawak (*Wallace*), 1 ♂. *Exp.* 22 millim.

5075. **Eublemma digona**, n. sp. (Plate CL. fig. 21.)

♀. Head and tegulæ rufous; thorax and abdomen grey tinged with rufous; pectus whitish; legs red-brown, the fore tibiæ and the tarsi blackish ringed with white. Fore wing purplish grey tinged with red-brown and slightly irrorated with black; a black point at base, subbasal black points on costa and in cell and some black irroration on inner area; antemedial line with oblique black striga from costa, then indistinct, oblique to median nervure, then minutely waved, a slight waved line before it on costal area; a faint discoidal lunule; medial line blackish, diffused, oblique from vein 8 to vein 6 just beyond the cell, inwardly oblique below vein 4, the

costal area beyond it whitish with a black streak below it; post-medial line oblique and black towards costa, then indistinct, dentate and produced to black and white points on the veins, a triangular blackish mark beyond it on costal area defined by white and with some white points on the costa; an indistinct dark subterminal line, dentate to vein 3, then incurved; a punctiform brown terminal line. Hind wing purplish grey tinged with red-brown and slightly irrorated with black; a black discoidal lunule; a rather diffused slightly sinuous black medial line; a faint postmedial line dentate and produced to blackish points on the veins, the area beyond it paler to the faint dentate subterminal line, with black spots before it above and below submedian fold; a fine brown terminal line; cilia with a fine pale line at base; the underside rufous with slight dark irroration, a black discoidal spot, black medial line excurved from below costa to vein 3, slight dentate postmedial line produced to black points on the veins and terminal series of black points.

Ab. 1. Fore wing with the medial line almost obsolete except towards costa and two spots above inner margin and without the whitish patch beyond it on costa; hind wing with the medial line indistinct.

Ab. 2. Similar, but the terminal half of fore wing and the medial and terminal areas of hind wing more suffused with red-brown.

Hab. Queensland, Armidale (*Dodd*), 1 ♀ type, Townsville (*Dodd*), 2 ♀. *Exp.* 22–26 millim.

Sect. II. Fore wing with the termen excised from apex to vein 3 where it is angled, then oblique; hind wing with the termen angled at vein 7, excised to vein 4 where it is excurved, then with two excisions to tornus.

*5076. Eublemma leptinia.

Micræschus leptinia, Mab. Ann. Soc. Ent. Fr. 1899, p. 731.

♂. Head, thorax, and abdomen purplish red mixed with whitish; palpi with dark bar near extremity of 2nd joint; tarsi white. Fore wing whitish almost wholly suffused with purplish red and

Fig. 29.—*Eublemma leptinia*, ♂. $\frac{3}{2}$.

with slight dark irroration; subbasal line represented by a black point on costa defined by white on outer side; antemedial line indistinct, dark, defined by whitish on inner side at costa, strongly excurved from subcostal nervure to inner margin; orbicular represented by a white point, the reniform by a small black lunule

with small white spot on its inner side; a triangular pale patch from costa to vein 4 just beyond the cell with oblique yellowish minutely waved line from it to inner margin; a subterminal series of blackish points defined on inner side by whitish marks, angled outwards below vein 7 and excurved at middle, the costa beyond it with alternating black and whitish points; a fine purplish red terminal line; cilia dark brown with yellowish line at base. Hind wing whitish almost wholly suffused with purplish red and with slight dark irroration; a small round black discoidal spot; a waved yellowish white postmedial line; a subterminal series of black points defined on inner side by whitish marks towards inner margin, angled inwards in discal fold; a fine deep red terminal line; cilia deep red with fine whitish line at base; the underside whitish suffused with purplish red, indistinct sinuous ante- and postmedial lines, a slight discoidal point, and subterminal black points from vein 2 to inner margin.

Hab. Madagascar, Antongil B., type † ♂ in Mus. Paris. *Exp.* 16 millim.

Sect. III. Fore wing with the termen strongly excised below apex and excurved at middle, then oblique to tornus, veins 3, 4 stalked; hind wing with the termen strongly excurved at middle; the cell about half the length of wing, veins 3, 4 strongly stalked.

A. Fore wing fuscous black..... *alstoni.*
B. Fore wing dark red-brown..... *falcatalis.*

5077. Eublemma alstoni.

Eublemma alstoni, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 647 (1907).

♂. Head, thorax, and abdomen fuscous black, the last with pale band on 2nd segment and slight segmental lines: tarsi with slight pale rings. Fore wing fuscous black, slightly irrorated with grey; an indistinct sinuous black antemedial line; medial line indistinct,

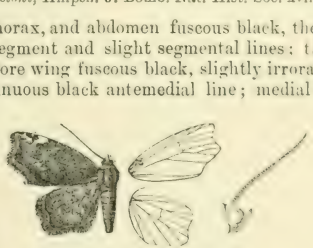

Fig. 30.—*Eublemma alstoni*, ♂. |.

black, excurved at middle; a slight black discoidal lunule; postmedial line indistinct, black, oblique and defined on outer side by a white band from costa to vein 6, then indistinctly double, angled outwards at vein 4 below which there is a white point beyond it, then oblique, some white points beyond it on costa and a white mark angled inwards below costa before apex; a black terminal line; cilia with some white at base towards apex. Hind

wing fuscous black mixed with some grey; an indistinct minutely waved black medial line; postmedial line diffused, black, angled outwards at middle; a black terminal line; the underside grey irrorated and suffused with fuscous, an indistinct diffused sinuous postmedial line.

Ab. 1. Fore wing without the white markings on costal area towards apex.

Hab. Ceylon, Maskeliya (*Alston*), 2 ♂ type. *Exp.* 12–24 millim.

*5078. Eublemma falcatalis. (Plate CL. fig. 22.)

Corgatha falcatalis, Hmpsn. Moths Ind. ii. p. 348 (1894).

♀. Head, thorax, and abdomen dark reddish brown; pectus, legs, and ventral surface of abdomen with some grey. Fore wing dark reddish brown slightly tinged with grey; an indistinct waved dark antemedial line; medial line blackish, somewhat diffused, angled outwards below costa and oblique below the cell; postmedial line dark, bent outwards below costa, then minutely waved, excurved to vein 4, then incurved; traces of a slightly waved subterminal line, incurved at discal fold, excurved at middle, then incurved and with dark suffusion before it; cilia deep rufous. Hind wing dark reddish brown slightly tinged with grey; a diffused dark antemedial shade; postmedial line dark, minutely waved, angled outwards at vein 4; the terminal area and cilia darker; the underside grey thickly irrorated with dark brown, a blackish discoidal spot, indistinct double minutely waved postmedial line, and irregularly waved subterminal line.

Hab. Sikhim (*Moller*), type † ♀ in Coll. Rothschild. *Exp.* 22 millim.

Sect. IV. (*Silda*). Fore wing with the termen strongly excurved at middle and excised below apex and towards tornus; hind wing with the termen slightly excised below vein 7, the cell about one-third length of wing and veins 3, 4 shortly stalked.

A. Fore wing with the costal area suffused with rufous towards apex ..... *truncatalis.*

B. Fore wing without rufous suffusion ..... *rubricilia.*

5079. Eublemma truncatalis.

Silda truncatalis, Wlk. xxvii. 131 (1863).

♂. Head, thorax, and abdomen purplish grey tinged with rufous; pectus, legs, and ventral surface of abdomen greyer, the tarsi rufous ringed with grey. Fore wing purplish grey tinged with rufous on costal area beyond postmedial line and slightly irrorated with brown; a slight oblique dark subbasal striga; antemedial line rufous towards costa, then slight, dark, excurved below the cell and incurved at vein 1; a black point in middle of cell and fuscous discoidal spot; medial line rufous, oblique from costa to beyond the cell where it is excurved, then inwardly oblique, traces of a

dark line beyond it; postmedial line indistinct, dark, double, minutely waved, excurved from costa to vein 4, then incurved and angled outwards at vein 1, some black points with slight pale marks between them beyond it on costa; a subterminal series of small dentate black marks; a terminal series of black points from apex to vein 5, then a fine line; cilia rufous with a grey line at base. Hind wing purplish grey slightly irrorated with brown; a minute black discoidal point; postmedial line dark defined on inner side by rufous, excurved at middle; subterminal line indistinct, grey, minutely dentate with a series of black points on its inner side; a series of black points before termen and a fine dark terminal line;

Fig. 31.—*Eublemma truncatalis*, ♂. $\frac{3}{2}$.

cilia dark brown with fine white lines at base and middle and white tips; the underside pale ochreous, the terminal area suffused with brown, a black discoidal point, straight postmedial line, and terminal series of slight black lunules.

Hab. Borneo, Sarawak (*Wallace*), 1 ♂ type. *Exp.* 18 millim.

5080. Eublemma rubricilia. (Plate CL. fig. 23.)

Eublemma rubricilia, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 207 (1902).

♂. Head and thorax whitish, the palpi, frons, and antennæ blackish; abdomen grey irrorated with black; pectus and legs grey tinged with fuscous. Fore wing grey-white sparsely irrorated with black; subbasal black points on costa and in cell: an indistinct dark sinuous antemedial line; a blackish discoidal spot; medial line blackish, bent outwards below costa, punctiform to vein 4, then oblique and minutely dentate; postmedial line blackish, strongly bent outwards below costa, then minutely dentate, oblique below vein 4, a blackish mark beyond it on costa; subterminal line whitish defined on outer side by black, slightly dentate and excurved below vein 7 and at middle; a fine black terminal line; cilia rufous with a whitish line at base. Hind wing grey-white irrorated with black; an indistinct blackish medial line excurved at middle and above inner margin; postmedial line indistinct, dentate and produced to black points on the veins; subterminal line indistinct, whitish, dentate with series of blackish points before and beyond it; a fine dark terminal line; cilia rufous with whitish line at base; the underside grey-white irrorated with black and with traces of diffused waved medial and postmedial lines.

Hab. Sikhim, 1800′ (*Dudgeon*), 1 ♂; Bhután (*Dudgeon*), 1 ♂; Singapore (*Ridley*), 1 ♂ type. *Exp.* 18 millim.

Sect. V. (*Eublemmoides*). Fore wing with the apex produced and acute, the termen strongly excurved at middle; hind wing with the termen evenly curved, the cell about half the length of wing and veins 3, 4 from angle.

A. Fore wing with highly dentate whitish subterminal line... *acrapex.*
B. Fore wing without highly dentate whitish subterminal line.
a. Fore wing with the postmedial area rufous except towards costa; hind wing with the medial area rufous.
a'. Fore wing with the subterminal line angled outwards at veins 4, 3..... *pectorora.*
b'. Fore wing with the subterminal line not angled outwards at veins 4, 3..... *semirufa.*
b. Fore wing with rufous patch on medial costal area ..... *rufiplaga.*
c. Fore wing with rufous postmedial patch on costa with whitish mark below it ..... *apicimacula.*
d. Fore wing without rufous patches on medial or postmedial areas.
a'. Fore wing with the postmedial area purplish grey .. *dinava.*
b'. Fore wing with the postmedial area not purplish grey. *subangulata.*

5081. Eublemma acrapex. (Plate CL. fig. 24.)

Eublemma acrapex, Hmpsn. Moths Ind. iv. p. 517 (1896).

♀. Head, thorax, and abdomen grey-white very thickly irrorated with dark red-brown, the last with pale segmental lines; pectus, legs, and ventral surface of abdomen whitish tinged with brown. Fore wing grey-white very thickly irrorated with dark red-brown; subbasal line indistinct, whitish, waved, from costa to vein 1; antemedial line double filled in with whitish, bent outwards below costa, then oblique, sinuous; a dark discoidal bar defined on outer side by whitish; a sinuous dark line from lower angle of cell to inner margin; postmedial line dark defined on outer side by white, very strongly excurved from costa to vein 4, then incurved and again excurved above inner margin, a dark patch beyond it on costal area with some white points on costa; subterminal line whitish, strongly dentate and defined on outer side by slight dentate fuscous marks; cilia red-brown at base, greyish at tips. Hind wing grey very thickly irrorated with dark red-brown; postmedial line brown defined on outer side by whitish, obliquely excurved from costa to vein 4, then incurved and bent outwards to inner margin; subterminal line whitish, minutely waved and with blackish points on its outer edge; cilia with fine pale line at base; the underside whitish tinged with rufous and thickly irrorated with dark brown.

Hab. Ceylon, Puttalam (*Pole*), 1 ♀ type. *Exp.* 22 millim.

5082. Eublemma pectorora. (Plate CL. fig. 25.)

Thalpochares pectorora, Lucas, Trans. Nat. Hist. Soc. Queensl. i. p. 109 (1894).

♂. Head and tegulæ rufous; thorax and abdomen violaceous white, the former with a few brown scales, the latter with rufous

dorsal bands except on basal segments; tarsi rufous ringed with white. Fore wing violaceous white, the area from medial to subterminal line bright rufous except towards costa; a subbasal black point on costa; antemedial line blackish towards costa, then indistinct, rufous, angled outwards in submedian fold; a minute brown point in middle of cell; medial line with oblique dark striæ from costa, rufous mark beyond the cell, then rufous and incurved; postmedial line slight, rufous, excurved below costa, slightly angled inwards in discal fold, then minutely waved, some white and brown points beyond it on costa; subterminal line white, minutely dentate and with some black points on its outer edge towards costa, angled inwards in discal fold and outwards to termen at middle, then incurved; a fine brown terminal line; cilia rufous with a whitish line at base. Hind wing violaceous white, the area from the sinuous rufous medial line to the white subterminal line bright rufous, the latter with minute black points on its outer edge, angled inwards in discal fold and outwards to termen at middle; cilia yellowish tinged with rufous and with white line at base; the underside pale yellow, the termen black, black points in middle of cell and on discocellulars.

Hab. N. Guinea (*Wallace*), 1 ♂; Queensland, Brisbane (*Turner*), 1 ♂. *Exp.* 18–20 millim.

5083. **Eublemma semirufa.** (Plate CL. fig. 26.)

Eublemma semirufa, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 207 (1902).

♀. Head and tegulæ rufous; thorax pale purplish grey; abdomen pale purplish grey, the terminal segments with diffused fuscous brown bands; pectus and ventral surface of abdomen white. Fore wing pale purplish grey; subbasal line represented by black points on costa and in cell, the antemedial line by a black striga from costa and point in cell; medial line deep rufous, oblique from costa to vein 6, incurved below vein 4 and slightly excurved above inner margin, the area between it and subterminal line deep rufous irrorated with yellowish except towards costa to below which it curves upwards at postmedial line, then oblique to subterminal line below vein 5; postmedial line rufous, bent inwards to costa, then minutely waved, incurved in submedian interspace, the costa beyond it with minute alternating black and white streaks; subterminal line slight, white, very minutely waved, with a series of black points on its outer edge, excurved at middle, then incurved; an oblique fuscous striga from apex; a fine brown terminal line; cilia white at base, black at tips. Hind wing pale purplish grey; medial line rufous, slightly incurved, the area between it and subterminal line rufous mixed with yellow and irrorated with black scales on disk; postmedial line rufous, dentate, incurved in submedian interspace; subterminal line whitish defined on outer side by black points, slightly excurved at middle; a fine brown terminal line; cilia white at base, blackish at tips. Underside of both

wings pale ochreous irrorated with a few black scales; fore wing with black points in middle of cell and on discocellulars; hind wing with black discoidal point, the terminal area suffused with fuscous.

Hab. Sikhim, 1800′ (*Dudgeon*), 1 ♀ type. *Exp.* 18 millim.

5084. Eublemma rufiplaga, n. sp. (Plate CL. fig. 27.)

♂. Head, thorax, and abdomen purplish grey. Fore wing purplish grey slightly irrorated with brown, the costa on antemedial area and the medial area to median nervure rufous; a brownish subbasal line from costa to submedian fold; antemedial line brown, excurved in and below cell and angled inwards on vein 1; a minute grey discoidal lunule defined on inner side by brown; an indistinct minutely waved medial line from lower angle of cell to inner margin; postmedial line brown, defined on outer side by white towards costa, oblique from costa to vein 6, then minutely waved, incurved at discal fold and below vein 4, some white points beyond it on costa; subterminal line indistinct, brown, minutely dentate; a fine brown terminal line; cilia dark chocolate-brown with fine grey lines at base and middle, the dark brown broken up into lunules towards tornus. Hind wing purplish grey slightly irrorated with brown; a postmedial series of dark brown points excurved at middle and traces of a subterminal series of points; a fine brown terminal line; cilia dark chocolate-brown at tips, purplish grey at base; the underside pale purplish grey with indistinct curved postmedial line.

Hab. Borneo, Sarawak (*Wallace*), 1 ♂ type. *Exp.* 16 millim.

5085. Eublemma apicimacula.

Erastria apicimacula, Mab. C. R. Ent. Soc. Belg. xxiii. p. xviii (1880).
Eublemma truncata, Hmpsn. Ann. S. Afr. Mus. iii. p. 437 (1905).

♀. Head white; thorax and abdomen yellowish white tinged with rufous; pectus and legs white, the tarsi banded with black. Fore wing yellowish suffused with rufous, the costal edge brownish; a subbasal black and white point on costa; antemedial line with

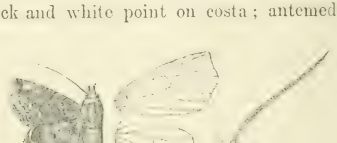

Fig. 32.—*Eublemma apicimacula*, ♂. ¾.

black and white point on costa, then very indistinct, rufous, curved; a small indistinct greyish discoidal lunule; medial line rufous, diffused, oblique from costa to lower angle of cell, then incurved;

postmedial line slight, brown defined on outer side by whitish, oblique from costa to vein 6, then inwardly oblique and incurved between vein 3 and submedian fold, a bright rufous patch beyond it on costa defined below by a white streak; subterminal line white, slightly angled inwards below costa and at discal fold, excurved and minutely waved at middle and bent outwards to tornus; terminal area greyish except at apex which is bright rufous; cilia greyish mixed with fuscous and with a darker patch at middle. Hind wing yellowish white, the terminal area suffused with brown; traces of a whitish subterminal line from vein 3 to tornus; cilia white mixed with brown; the underside white irrorated with blackish, indistinct minutely waved dark postmedial and subterminal lines and a terminal series of black points.

♂. Thorax whiter; fore wing violaceous white irrorated and suffused with reddish brown, a small white spot before the subterminal line below vein 7 with a chocolate-brown patch below it.

Hab. Br. E. Africa, Taveta (*Rogers*), 1 ♀; Natal, Durban (*Leigh*), 1 ♂, 1 ♀, type *truncata*; Madagascar, type † in Coll. Mabille. *Exp.* 20 millim.

*5086. Eublemma dinava. (Plate CL. fig. 28.)

Eublemmoides dinawa, Beth.-Baker, Nov. Zool. xiii. p. 212 (1906).

♀. Head and tegulæ deep chocolate-red; thorax ochreous white; pectus with some black irroration; legs rufous, the extremity of tibiæ and 1st joint of tarsi black, the other joints of tarsi rufous and black ringed with white; abdomen ochreous white irrorated with a few black scales, a lateral blackish line, the ventral surface suffused with rufous. Fore wing ochreous white irrorated with a few black scales, the area beyond postmedial line purplish grey except at costa; traces of a sinuous dark antemedial line incurved in cell and at vein 1; a black point in middle of cell and two on discocellulars; a faint whitish medial line defined on inner side by black-brown spots, oblique from costa to discal fold well beyond the cell, then incurved to vein 1 where it terminates; postmedial line slight, red-brown, oblique from costa to vein 6, then with series of black and white points beyond it on the veins, excurved to vein 4, then incurved and slightly excurved at vein 1; a subterminal series of small rather dentate red-brown spots, more distinct and blackish towards costa, excurved at middle; small black spots just before termen below apex and below veins 4 and 3; cilia with brown marks at apex and the angle at vein 4. Hind wing ochreous whitish, the termen and cilia red-brown; an indistinct double dentate medial line and postmedial and subterminal series of black points. Underside of fore wing pale purplish brown, the area below the cell suffused with fiery red to the medial line, a subbasal black patch below costa, an antemedial spot in cell, a point in middle of cell and pale mark beyond the cell, the medial line with series of black points on it, a postmedial series of black

points; hind wing pale yellow tinged with red and slightly irrorated with black, the terminal half pale purplish brown from costa to vein 4, a black discoidal lunule, indistinct waved brown medial line, indistinct dentate postmedial line with black points at end of teeth, and small black lunule on termen below apex.

Hab. Br. New Guinea, Dinawa (*Pratt*), type † ♀ in Coll. Bethune-Baker. *Exp.* 24 millim.

5087. Eublemma subangulata. (Plate CL. fig. 29.)

Eublemma subangulata, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 207 (1902).

Head and tegulæ pale rufous; thorax and abdomen whitish slightly tinged with rufous; tarsi rufous ringed with white. Fore wing ochreous tinged with rufous; antemedial line hardly traceable, incurved in cell; minute black points in middle of cell and on discocellulars; medial line indistinct, very oblique from costa to vein 6 well beyond the cell, then inwardly oblique, incurved below vein 4; postmedial line indistinct, bent outwards below costa, then minutely dentate, incurved below vein 4; subterminal line very indistinct, with black points on its outer edge from costa to discal fold; a fine brown terminal line; cilia rather deeper rufous. Hind wing ochreous suffused with rufous except at base and irrorated with a few black scales; a slight antemedial line; two indistinct postmedial lines, the outer somewhat diffused; a subterminal series of minute black points; a fine brown terminal line; cilia rather deeper rufous; the underside yellow tinged with rufous and irrorated with black, a slight discoidal spot and traces of two postmedial and a subterminal line.

Hab. Ceylon, Pundaloya (*Green*), 3 ♂, 2 ♀ type. *Exp.* 20–22 millim.

Larva. Coccidiphagous, preys on *Maskellia zonata*, Green.

Sect. VI. Fore wing with the apex produced to a small lobe, the termen evenly curved; hind wing with the cell about one-third length of wing, veins 3, 4 from angle.

A. Fore wing yellow with the terminal area rufous..... *quadrapex.*
B. Fore wing creamy white..... *galactea.*

5088. Eublemma quadrapex.

Mestleta quadrapex, Hmpsn. Ill. Het. B. M. viii. p. 91, pl. 147. f. 15 (1891); id. Moths Ind. ii. p. 343.

♀. Head and thorax ochreous white tinged with yellow; antennæ ringed with rufous, the tegulæ rufous at base, legs tinged with rufous, the tarsi irrorated thickly with black and ringed with white; abdomen ochreous white dorsally suffused with rufous except at base and with lateral black streaks. Fore wing ochreous yellow irrorated with brown to the medial line; subbasal line represented by a minute black point on costa; antemedial line very indistinct, with a black point at costa, incurved in cell where

there is a black point on it, excurved below the cell and angled inwards on vein 1 ; a slight blackish point in middle of cell and faint discoidal striga ; medial line strong, rufous, acutely angled outwards below costa to far beyond the cell, then very oblique, the costal area beyond it violaceous white, then the area between it and postmedial line purple ; postmedial line acutely angled outwards to below apex, then oblique, slightly dentate at veins 4, 3, 1, and with minute black and white points at the veins, some white points beyond it on costa ; terminal area rufous ; subterminal line slight, dark, dentate, excurved at middle, slightly defined on inner side by white below the costa ; a small chocolate spot on the apical

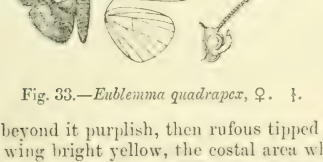

Fig. 33.—*Eublemma quadrapex*, ♀. ½.

lobe, the cilia beyond it purplish, then rufous tipped with pink and white. Hind wing bright yellow, the costal area whitish, a rufous medial line except on costal area, diffused on inner side, the area beyond it suffused with purple to the postmedial line, which is indistinct, somewhat dentate, excurved and produced to black points at middle ; traces of a subterminal series of black points ; cilia rufous, pink and white at tips ; the underside yellow irrorated with black scales, a black discoidal point, sinuous postmedial line, and terminal series of black points.

Hab. Madras, Nilgiris (*Hampson*), 1 ♀ type ; Burma, E. Pegu. *Exp.* 26 millim.

5089. **Eublemma galactea**, n. sp. (Plate CL. fig. 30.)

♀. Head and tegulæ pale rufous ; thorax and abdomen creamy white faintly tinged with rufous ; tarsi rufous ringed with white. Fore wing creamy white faintly tinged with rufous ; antemedial line with black point on costa, then very indistinct, sinuous ; a black point in middle of cell and small brown discoidal spot ; medial line oblique and dark from costa to vein 6 just beyond the cell, then indistinct and incurved below vein 4 ; postmedial line slight, oblique at costa, then minutely dentate, incurved below vein 4 ; the costa towards apex red-brown with some white points on it ; subterminal line formed of minute dentate blackish marks from costa to discal fold, then slight, excurved at middle, then incurved and bent outwards to termen above tornus ; an oblique red-brown striga from apex ; a fine brown terminal line ; cilia greyish with strong red-brown line at middle and red-brown tips. Hind wing creamy

white faintly tinged with rufous; traces of an oblique rufous medial line; a slight minutely dentate postmedial line with dark points at the veins; a subterminal series of slight dark points; a fine brown terminal line; cilia with strong red-brown line at middle and red-brown tips; the underside yellowish white, the termen irrorated and suffused with black, a minute black discoidal point and postmedial series of points.

Hab. Sangir (*Doherty*), 1 ♀ type. *Exp.* 20 millim.

Sect. VII. Fore wing with the termen evenly curved; hind wing with the termen excised below apex.

5090. Eublemma posticata.

Eupithecia posticata, Wlk. xxxv. 1678 (1866).

Head, thorax, and abdomen greyish mixed with some rufous and blackish; pectus, legs, and ventral surface of abdomen whitish. Fore wing greyish suffused with brown and in parts with rufous; subbasal black points on and below costa; traces of an oblique waved antemedial line; a white discoidal lunule defined on each

Fig. 34.—*Eublemma posticata*, ♂. ♀.

side by black striæ, a short black streak before it and one beyond it extending to postmedial line, which is defined by whitish on outer side, very oblique to discal fold, then inwardly oblique and minutely waved; subterminal line whitish, minutely dentate and with short black streaks beyond it; termen rufous with a fine minutely waved whitish line before it; cilia rufous with a fine white line at base and black patches towards apex, at middle and at tornus. Hind wing greyish suffused with brown and in parts with rufous, irrorated with a few black scales; some black scales near base; a slight whitish discoidal spot with black point before it; postmedial line whitish, sinuous, defined on inner side by some black scales and on outer side at costa; subterminal line whitish, dentate, with patches of black scales beyond it; a terminal series of slight black points; cilia pale rufous with patches of black scales towards apex and at middle; the underside whitish, the terminal area suffused with brown.

Hab. Borneo, Sarawak (*Wallace*), type † ♀ in Mus. Oxon.; Pulo Laut (*Doherty*), 1 ♂. *Exp.* 16 millim.

Sect. VIII. Fore wing with the apex not lobed, the termen evenly curved; hind wing with the termen evenly curved, the cell about half the length of wing and veins 3, 4 almost always from the angle.

A. Fore wing of male with four slight grooves on postmedial area between costa and vein 5.

a. Fore wing with the terminal half bright pink..... *secta.*

b. Fore wing with the terminal half not pink ..... *pudica.*

5091. Eublemma secta.

Anthophila secta, Guen. Noct. ii. p. 249 (1852).
Micra hemirhoda, Wlk. xxxiii. 799 (1865); Hmpsn. Moths Ind. ii. p. 342.
Anthophila roseifascia, Wlk. xxxiii. 803 (1865).
Thalpochares adulans, Feld. Reis. Nov. pl. 108. f. 11 (1874).
Thalpochares basilissa, Meyr. Tr. R. Soc. S. Austr. xiv. p. 196 (1891).

Head, thorax, and abdomen pale yellow, the last with slight pink mark on dorsum of 2nd segment: fore and mid tibiæ tinged with pink. Fore wing with the basal half pale yellow, its outer edge oblique and running out to a point on costa well beyond middle; the terminal half bright pink with an oblique fawn-coloured subterminal band from vein 7 to inner margin; cilia white at tips. Hind wing yellowish white, the terminal area tinged with brown, with some bright pink on termen and cilia

Fig. 35.—*Eublemma secta*, ♂. ½.

towards tornus and a slight pink streak on terminal part of vein 1: cilia white at tips: the underside whitish, the costal area tinged with pink, a terminal series of black points from apex to vein 2.

Hab. Japan, Yokohama (*Pryer*), 1 ♂; C. China, Ichang (*Pratt*), 1 ♂, 1 ♀, Ship-y-Shan, 1 ♂, 1 ♀; W. China, Chang-yang (*Pratt*), 1 ♀; Formosa, 1 ♀; Bengal, Calcutta, 1 ♀; Madras, Ganjam; Ceylon; Andamans, 2 ♂, 1 ♀; Java (*Horsfield*), 2 ♂, 1 ♀, type and type *hemirhoda*; New Guinea (*Mathew*), 1 ♂; Queensland: Hab. ign. 1 ♀ type *roseifascia*. *Exp.* 20–26 millim.

5092. Eublemma pudica.

Thalpochares pudica, Snell. Tijd. v. Ent. xxiii. p. 63, pl. 5. f. 5 (1880).
Mestleta acontioides, Moore, Lep. Atk. p. 179, pl. 5. f. 15 (1882); Hmpsn. Moths Ind. ii. p. 339.
Mestleta interrupta, Moore, Lep. Ceyl. iii. p. 209, pl. 175. f. 7 (1885).

Head, thorax, and abdomen ochreous white, the head, tegulæ, and fore legs suffused with rufous, the hind tibiæ with black band at extremity. Fore wing pale ochreous, the costal area whiter to

beyond middle, the costal edge rufous at base then black to near middle; a minute black point in cell near base; an antemedial series of minute black points, incurved in cell, then angled outwards and oblique to inner margin; a black point in middle of cell; an oblique dark-brown shade diffused on inner side from postmedial line below costa to middle of inner margin; a black striga from costa above end of cell; postmedial line fine, black, oblique at costa, then very minutely waved and incurved below vein 4, a black mark beyond it below costa connected with an oblique red-brown bar from apex; the costa towards apex red-brown with some white points on it; subterminal line indistinct, whitish, minutely dentate, with a series of small black lunules on its outer edge except towards costa; the terminal area suffused with brown except at apex; cilia brown with a fine whitish line at base. Hind wing ochreous white, the terminal area suffused with brown; a wedge-shaped brown patch above middle of inner margin with a black bar on its outer edge; a postmedial series of black points from discal fold to inner margin; traces of a subterminal series of small dark spots with oblique black striæ defined on inner side by ochreous on termen below veins 3 and 2; a fine blackish terminal line; cilia rufous with a whitish line at base; the underside white, the costal area and terminal area to vein 2 tinged with ochreous and irrorated with black, a black discoidal point and postmedial series from costa to vein 2.

Hab. Bengal, Calcutta; Ceylon, 1 ♀ type *interrupta*; Andamans (*Rogers*), 1 ♂; Java (*Horsfield*), 1 ♂; Celebes. *Exp.* 16–18 millim.

B. Fore wing of male with two slight subterminal grooves below veins 8 and 7, the apex somewhat produced and acute.
  a. Fore wing with the postmedial line arising from apex . *trigramma.*
  b. Fore wing with the postmedial line arising from well before apex ..... *orthogramma.*

5093. Eublemma trigramma. (Plate CL. fig. 31.)

Eublemma trigramma, Hmpsn. P. Z. S. 1910, p. 411.

♂. Head white tinged with rufous; tegulæ pale rufous; thorax and abdomen white tinged with brown; pectus, legs, and ventral surface of abdomen white tinged with pale rufous. Fore wing creamy white suffused with brown leaving the costal area white to near apex, the termen bright rufous; antemedial line brown defined on inner side by white, very oblique, arising from below middle of costa; medial line brown defined on outer side by white, very oblique, arising from below costa beyond middle; postmedial line creamy white, very oblique, arising from apex and crossing the slight punctiform dark subterminal line which is oblique below vein 4; cilia brown with white line at base except at tornus. Hind wing creamy white, the terminal half of inner margin and

the termen suffused with brown and tinged with rufous; cilia white tinged with rufous at base; the underside creamy white, the apical area suffused with fiery red.

Hab. N.E. Rhodesia, E. Luangwa Distr.; Mashonaland, Umtali (*Marshall*), 1 ♂ type. *Exp.* 22 millim.

5094. Eublemma orthogramma.

Micra orthogramma, Snell. Tijd. v. Ent. xvii. p. 59, pl. 5. f. 5 (1872).

♂. Head, thorax, and abdomen white slightly tinged with rufous. Fore wing creamy white irrorated with rufous and a few blackish scales, the costal area suffused with rufous to the narrow oblique rufous antemedial band; a narrow oblique rufous medial

Fig. 36.—*Eublemma orthogramma*, ♂. $\frac{3}{2}$.

band, bent inwards to costa; a narrow rufous postmedial band defined on outer side by white, excurved below costa, then slightly oblique; the terminal area rufous with traces of a whitish subterminal line defined on outer side by points formed of black scales, excurved below vein 7 and at middle; a small apical fiery red spot: cilia white, mixed with rufous at tips. Hind wing pure white with slight brownish postmedial line from vein 2 to inner margin and fine brown terminal line; the underside with the costal area and terminal area to vein 2 irrorated with brown, a terminal series of dark points.

♀. Hind wing tinged with ochreous and with some dark points on termen towards apex.

Hab. Sierra Leone (*Clements*), 2 ♂, 1 ♀. *Exp.* 18 millim.

C. Fore wing of male with slight fovea below costa towards apex which is somewhat produced and acute.
  a. Fore wing without semicircular apical patch.
    a^1. Fore wing with the postmedial line angled outwards below costa ..... *quadrilineata*.
    b^1. Fore wing with the postmedial line excurved below costa ..... *baccalix*.
  b. Fore wing with semicircular apical patch ..... *trifasciata*.

5095. Eublemma quadrilineata.

Thalpochares quadrilineata, Moore, P. Z. S. 1881, p. 370, pl. 38. f. 14.
Eublemma trifasciata, Hmpsn. Moths Ind. ii. p. 343 (*nec* Moore).

Head, thorax, and abdomen creamy white slightly tinged with

purplish brown. Fore wing creamy white irrorated with pale purplish brown, the terminal area bright rufous except towards tornus; antemedial line white defined on inner side by rather diffused brown, oblique; medial line whitish defined on inner side by diffused brown, rather oblique and slightly excurved below costa and cell; postmedial line white, defined on inner side by brown suffusion which crosses to the outer side below costa, bent outwards

Fig. 37.—*Eublemma quadrilineata*, ♂. $\frac{3}{2}$.

below costa, then oblique; subterminal line very indistinct, whitish defined on outer side by minute black points, excurved at middle and incurved above and below middle; cilia brownish with a fine white line at base. Hind wing ochreous white; a faint brownish postmedial line from discal fold to inner margin; the terminal area tinged with rufous; a slight brown terminal line; the underside white with faint traces of a curved postmedial line, the apical area tinged with red and slightly irrorated with brown.

Hab. Br. C. Africa, Lake Nyasa (*de Jersey*), 1 ♀; Persian Gulf, Fao (*Cuming*), 1 ♂, 1 ♀; Punjab, Oudh, 1 ♀; Bengal, Calcutta; Sind, Karachi (*Swinhoe*), 1 ♀; New Hebrides (*Mathew*), 1 ♀. *Exp.* 18–22 millim.

5096. Eublemma baccalix.

Mestleta baccalix, Swinh. P. Z. S. 1886, p. 452, pl. 40. f. 7; Hmpsn. Moths Ind. ii. p. 343.
Mestleta fasciosa, Moore, Lep. Ceyl. iii. p. 552, pl. 214. f. 12 (1887).

♂. Head and tegulæ white mixed with pale red-brown; thorax pale red-brown, the scales tipped with white; abdomen white suffused with red-brown; pectus white. Fore wing pale purplish brown mixed with rufous and white, the subcostal area whiter from near base to near apex with some blackish irroration in the fovea; antemedial and medial lines whitish, oblique; postmedial line whitish, excurved below costa, then oblique; subterminal line slight, whitish, excurved and with bright rufous suffusion before it at middle; the apex bright rufous; cilia with a fine whitish line at base. Hind wing yellowish white, the terminal area slightly tinged with rufous; a fine brown terminal line; cilia white tinged with brown; the underside with the costal area and terminal area to vein 2 irrorated with red-brown, a slight discoidal spot, traces of a diffused postmedial line from costa to vein 3, and terminal series of points.

♀. Hind wing tinged with brown.

Hab. Br. E. Africa, Munisu (*Ld. Delamere*), 1 ♂, N'gong (*Crawshay*), 1 ♂; Br. C. Africa, Lake Nyasa (*de Jersey*), 1 ♂; Cape Colony, Transkei (*Miss F. Barrett*), 1 ♀; Bombay, Mhow (*Swinhoe*), 1 ♂ type; Ceylon, Pundaloya (*Green*), 2 ♂, type *fasciosa*. *Exp.* 18–22 millim.

5097. Eublemma trifasciata.

Thalpochares trifasciata, Moore, P. Z. S. 1881, p. 370, pl. 38. f. 21.
Eublemma demba, Swinh. A. M. N. H. (7) vii. p. 472 (1901).

♀. Head and thorax white, the latter tinged with brown behind; abdomen white tinged with brown. Fore wing white suffused with brown except on costal area, the costa with five small fuscous spots; indistinct oblique white antemedial, medial, and postmedial lines from the costal area to inner margin; subterminal line indistinct, whitish, incurved below costa and excurved at middle and to tornus, some black scales on its outer edge and small black spots towards costa on a bright rufous apical patch which has a slight dark mark on termen below apex; cilia white tinged with ochreous brown, rufous at apex. Hind wing white suffused with ochreous brown except at base; an ill-defined oblique white medial line; cilia white tinged with ochreous brown; the underside white, the costal area and terminal area to vein 2 slightly irrorated with brown.

Hab. Bengal, Pusa (*Lefroy*), 1 ♀, Calcutta; Madras, Gooty (*Campbell*), 1 ♀; Borneo, Sarawak, 1 ♀ type. *Exp.* 18 millim.

D. Fore wing of male with small glandular postmedial swelling on costa.
- *a.* Fore wing with more or less developed dark streak in or beyond end of cell.
  - *a*¹. Fore wing with prominent dentate black subterminal line ..... *aciculata*.
  - *b*¹. Fore wing without dentate black subterminal line.
    - *a*². Fore wing with terminal series of dark striæ ... *fædosa*.
    - *b*². Fore wing with continuous terminal line.
      - *a*³. Fore wing with oblique dark shade from apex. *flaviceps*.
      - *b*³. Fore wing without oblique dark shade from apex *fulvitermina*.
- *b.* Fore wing without dark streak in or beyond end of cell.
  - *a*¹. Fore wing with the postmedial line bent outwards below costa and slightly incurved at discal fold ... *punctilinea*.
  - *b*¹. Fore wing with the postmedial line strongly excurved from below costa to vein 4 ..... *albifrons*.

5098. Eublemma melanodonta, n. sp. (Plate CL. fig. 32.)

♂. Head, thorax, and abdomen white tinged and irrorated with red-brown; palpi more rufous; antennæ brown; legs brownish, the tarsi with slight pale rings. Fore wing creamy white tinged with rufous and with slight dark irroration, the veins white defined by fine red-brown streaks, the costa and terminal area except towards tornus red-brown; a black streak in discal fold from middle

of cell to discocellulars; postmedial line red-brown, arising at vein 6, indistinct and erect to vein 4, then with aggregated black scales on it and very oblique to inner margin near base; subterminal line black, strongly dentate, arising from apex, angled inwards at discal and submedian folds and ending on termen at vein 1; cilia white with diffused black-brown streaks and oblique black mark at apex. Hind wing white tinged with brown, the cilia with some black at tips except towards apex and tornus; the underside white irrorated with brown.

Hab. Transvaal, Johannesburg (*Cooke*), 1 ♂ type. *Exp.* 28 millim.

5099. Eublemma fœdosa.

Anthophila fœdosa, Guen. Noct. ii. p. 254 (1852).

Head and thorax white, the tegulæ tinged with yellow, the patagia with pale rufous; palpi and antennæ rufous; abdomen white tinged with rufous; legs mostly rufous. Fore wing white tinged with rufous, the basal costal area and the cell pure white, the costal edge blackish towards base; a black-brown streak in basal half of submedian fold; black points in middle of cell and on

Fig. 38.—*Eublemma fœdosa*, ♂. ½.

discocellulars with some rufous between them and a black-brown streak from the latter to near termen; the terminal area rather deeper rufous with very slight white streaks on the veins; a terminal series of red-brown striæ with white points between them and an oblique black-brown mark at apex with some white before it on costa; cilia white thickly irrorated with dark brown, the tips rufous with a red-brown terminal line. Hind wing almost pure white with a fine blackish terminal line except at apex and tornus; the underside yellowish white slightly irrorated with brown, the costa tinged with rufous, a terminal series of black points.

Ab. 1. Fore wing more uniform grey-white with hardly any rufous tinge and sparsely irrorated with black.

Hab. Br. E. Africa, E. Quaso (*Betton*), 1 ♂; Uganda, Mulema (*Doggett*), 1 ♂; Mashonaland, Salisbury (*Marshall*), 1 ♂; Transvaal, Johannesburg (*Gruger*, *Cooke*), 2 ♂, Pretoria (*Janse*), 1 ♂, Rietfontein (*Janse*), 1 ♂, 2 ♀; Natal, Durban (*Leigh*), 3 ♂; Orange R. Colony, Bloemfontein (*Eckersley*), 1 ♂; Basutoland, Masite (*Crawshay*), 1 ♂, Little Caledon (*Crawshay*), 1 ♀. *Exp.* 20–26 millim.

5100. Eublemma flaviceps. (Plate CLI. fig. 1.)

Eublemma flaviceps, Hmpsn. Ann. S. Afr. Mus. ii. p. 422 (1902).

Head, thorax, and abdomen creamy white, the head and tegulæ tinged with yellow, the palpi and antennæ yellow; fore and mid legs brownish ochreous. Fore wing creamy white slightly irrorated with brown; black points in middle of cell and on discocellulars; an oblique fuscous shade from apex to discal fold where it is met by a diffused fuscous fascia from discocellulars, the terminal area tinged with reddish brown from below the apical streak; a subterminal series of slight black points from discal fold to inner margin, excurved at middle; a red-brown terminal line; cilia white irrorated with fuscous and with a white line at base. Hind wing nearly pure white with a slight brown terminal line; cilia with some fuscous at tips; the underside with the costal and terminal areas slightly tinged with ochreous and irrorated with brown.

Hab. Mashonaland, Salisbury (*Marshall*), 1 ♀ type; Natal, Colenso (*Janse*), 1 ♀; Basutoland, Maseru (*Crawshay*), 1 ♂; Cape Colony, Deelfontein (*Sloggett*), 1 ♂. *Exp.* 20 millim.

5101. Eublemma fulvitermina, n. sp. (Plate CLI. fig. 2.)

♂. Head and tegulæ orange-yellow; thorax and abdomen creamy white, the shoulders with orange bars, the legs tinged with yellow. Fore wing creamy white, the costal edge orange-fulvous; slight black points in middle of cell and on discocellulars; traces of an oblique fulvous medial line from discal fold well beyond the cell to inner margin and of a postmedial line angled outwards below costa to near subterminal line, then oblique to inner margin; a faint oblique fuscous shade from apex with a slight oblique fulvous subterminal line from it to inner margin; a fine orange terminal line; cilia tinged with brown, with a fine white line at base and blackish line near tips. Hind wing nearly pure white with a slight brownish terminal line; cilia at tips with brown mixed; the underside with the costal and terminal areas irrorated with ochreous, a terminal series of slight blackish points.

Hab. Natal, Estcourt (*Hutchinson*), 1 ♂; Transvaal, White R. (*Cooke*), 1 ♂; Orange R. Colony, Bloemfontein (*Eckersley*), 1 ♂ type. *Exp.* 22 millim.

5102. Eublemma punctilinea. (Plate CLI. fig. 3.)

Eublemma punctilinea, Hmpsn. Ann. S. Afr. Mus. ii. p. 416 (1902).

♂. Head and tegulæ rufous mixed with some white; thorax and abdomen white irrorated with some brown. Fore wing grey-white sparsely irrorated with black; subbasal line represented by a black point in cell; antemedial line indistinct, black, sinuous; a black striga in middle of cell and diffused discoidal spot, with an oblique blackish streak above it from costa, followed by a series of

points oblique to vein 6, then inwardly oblique; postmedial line slight, dentate and produced to black points on the veins, slightly angled inwards at discal fold and oblique below vein 4, a subterminal series of black points with a small spot at submedian fold; a terminal series of black points; cilia tinged with fuscous at tips. Hind wing grey-white irrorated with black; a medial series of black points on inner area; postmedial line faint with some black points on it, dentate, from below costa to inner margin; subterminal and terminal series of black points; the underside white tinged with rufous and irrorated with black, a diffused blackish postmedial line from vein 7 to submedian fold.

Hab. Natal, Durban (*Leigh*), 1 ♂ type. *Exp.* 20 millim.

5103. Eublemma stictilinea, n. sp. (Plate CLI. fig. 4.)

♂. Head, tegulæ, and base of patagia white, the palpi and antennæ brownish; thorax and abdomen white tinged with brown. Fore wing brownish white irrorated with dark brown, the costal area whiter to the postmedial line; antemedial line represented by slight obliquely placed dark points in cell and submedian fold; a minute black point in middle of cell; medial line dark brown, ill-defined and minutely dentate, oblique from costa to vein 4 well beyond the cell, then inwardly oblique; postmedial line dark brown, minutely waved, very obliquely excurved from costa to vein 4, then very oblique; a lunulate brown terminal line. Hind wing brownish white slightly irrorated with brown.

Hab. Cape Colony, Transkei (*Miss F. Barrett*), 1 ♂ type. *Exp.* 18 millim.

E. (*Eublemma*). Fore wing of male normal.
  a. Fore wing with the medial line present.
    a^1. Fore wing with the lines expanding into small triangular spots on costa.
      a^2. Fore wing with the ground-colour not pale olive-yellow.
        a^3. Hind wing not yellow.
          a^4. Fore wing with the medial line excurved round end of cell.
            a^5. Fore wing with the subterminal line black and dentate to termen on veins 6–3 ..... *eupethecica.*
            b^5. Fore wing with the subterminal line not dentate to termen on veins 6–3.
              a^6. Fore wing with short black streaks on terminal area below veins 7, 6, 5 ..... *melabela.*
              b^6. Fore wing without short black streaks on terminal area below veins 7, 6, 5.
                a^7. Fore wing with series of points formed of black scales beyond subterminal line ..... *epistrota.*
                b^7. Fore wing without series of points formed of black scales beyond subterminal line.
                  a^8. Fore wing with the medial area not suffused with rufous.
                    a^9. Fore wing without dark apical patch.

a^{10}. Fore wing without dark shade from post-medial line to termen at discal fold.
a^{11}. Fore wing without dark shade on inner area beyond middle.
a^{12}. Fore wing pale purplish grey suffused with brown.
a^{13}. Fore wing without rufous marks before subterminal line.
a^{14}. Fore wing without fiery red post-medial mark below vein 7.
a^{15}. Fore wing with the postmedial line not excurved at middle almost to subterminal line.
a^{16}. Fore wing with the lines not tinged with rufous.
a^{17}. Fore wing grey slightly suffused with brown ..... *velox.*
b^{17}. Fore wing grey strongly suffused with brown ..... *contingens.*
b^{16}. Fore wing with the lines tinged with rufous ..... *quinaria.*
b^{15}. Fore wing with the postmedial line excurved at middle almost to subterminal line.
a^{16}. Fore wing without crimson streaks on the veins of terminal area ..... *brunnea.*
b^{16}. Fore wing with slight crimson streaks on the veins of terminal area ..... *paurograpta.*
b^{14}. Fore wing with fiery red postmedial mark below vein 7 ..... *pyrosticta.*
b^{13}. Fore wing with small pale rufous marks before subterminal line at middle ..... *thermosticta.*
c^{13}. Fore wing with small dentate rufous marks before subterminal line below vein 7 and at middle ..... *suelleni.*
b^{12}. Fore wing brown without purplish-grey tinge ..... *nannata.*
c^{12}. Fore wing deep purplish grey irrorated with red-brown ..... *dardouini.*
d^{12}. Fore wing deep purplish grey tinged with purplish red and irrorated with black ..... *tritonia.*
b^{11}. Fore wing with dark shade on inner area beyond middle.
a^{12}. Fore wing without pinkish mark before middle of subterminal line ..... *minuma.*
b^{12}. Fore wing with slight pinkish mark before middle of subterminal line ..... *misturata.*
b^{10}. Fore wing with dark shade from post-medial line to termen at discal fold ... *sciaphora.*
b^{9}. Fore wing with dark apical patch.
a^{10}. Fore wing grey ..... *phaeopera.*
b^{10}. Fore wing white tinged with rufous ..... *anticalis.*
b^{8}. Fore wing with the medial area suffused with rufous, at least in male.
a^{9}. Fore wing with the ante- and postmedial areas not suffused with black.
a^{10}. Fore wing with the whole medial area suffused with rufous .....

b^{10}. Fore wing with the basal half of medial area suffused with rufous except towards costa in male only ..... *fasciata.*
b^9. Fore wing with the antemedial and post-medial costal areas suffused with black.
a^{10}. Fore wing with the whole medial area rufous except the outer part of inner area ..... *decora.*
b^{10}. Fore wing with the rufous on medial area reduced to a patch from costa to beyond the cell ..... *rubripuncta.*
c^{10}. Fore wing with the rufous on medial area reduced to a patch beyond the reniform... *melanodonta.*
b^4. Fore wing with the medial line sinuous, not excurved round end of cell ..... *thermochroa.*
b^3. Hind wing yellow, in female suffused with red-brown ..... *flavinia.*
b^2. Fore wing with the ground-colour pale olive-yellow..... *lacernaria.*
b^1. Fore wing with the lines not expanding into small triangular spots on costa.
a^2. Hind wing with more or less prominent white antemedial or medial band, at least on underside.
a^3. Wings black ..... *stygiochroa.*
b^3. Fore wing greyish suffused with brown.
a^4. Fore wing with the medial line almost straight.
a^5. Fore wing with small white spot on subterminal line at costa ..... *jucunda.*
b^5. Fore wing without white spot on subterminal line at costa ..... *bolinia.*
b^4. Fore wing with the medial line curved; hind wing with the white band obsolete above ..... *hypozonata.*
c^4. Fore wing with the medial line angled outwards at lower angle of cell.
a^6. Fore wing with the medial line angled inwards in submedian fold ..... *leucanitis.*
b^7. Fore wing with the medial line not angled inwards in submedian fold.
a^6. Fore wing with the medial line not excurved below costa or bent inwards to inner margin.
a^7. Hind wing with the subterminal line not defined on outer side by patches of white ... *leucozona.*
b^7. Hind wing with the subterminal line defined on outer side by patches of white.
a^8. Fore wing irrorated with dark brown ..... *syrtensis.*
b^8. Fore wing not irrorated with dark brown ... *suava.*
b^6. Fore wing with the medial line slightly excurved below costa and bent inwards to inner margin ..... *arcuinna.*
b^2. Hind wing without white antemedial or medial band.
a^3. Fore wing with the medial line oblique from costa to lower angle of cell where it is slightly angled outwards.
a^4. Fore wing with the subterminal line not defined on inner side by wedge-shaped dark marks.
a^5. Fore wing ochreous white suffused with rufous. *cuelecana.*
b^5. Fore wing white with cornucopia-shaped patch of olive-green or brown suffusion on terminal area.

a^6. Fore wing with the inner area suffused with olive-green from near base to the terminal patch ..... *chlorochroa.*

b^6. Fore wing with triangular patch of olive-green suffusion on inner area separated from the terminal patch ..... *admota.*

c^6. Fore wing without olive-green suffusion on inner area.

a^7. Fore wing with the upper edge of the terminal patch irregular ..... *olivacea.*

b^7. Fore wing with the upper edge of the terminal patch evenly curved ..... *reducta.*

c^5. Fore wing with the basal half white, the terminal half fuscous.

a^6. Fore wing with the medial line very oblique towards costa ..... *bipartita.*

b^6. Fore wing with the medial line slightly oblique towards costa ..... *leucomelana.*

b^4. Fore wing with the subterminal line defined on inner side by more or less developed wedge-shaped dark marks.

a^5. Fore wing without dark patch on inner side of subterminal line below costa ..... *ostrina.*

b^5. Fore wing with dark patch on inner side of subterminal line below costa ..... *staudingeri.*

b^3. Fore wing with the medial line excurved from below costa to vein 4 beyond the cell, then incurved or oblique.

a^4. Fore wing with the medial line slightly angled inwards at discal fold.

a^5. Fore wing greyish ochreous suffused with red-brown, and with fuscous to medial line ..... *nigrivitta.*

b^5. Fore wing creamy white irrorated with rufous... *atriciliata.*

c^5. Fore wing yellowish suffused with fiery red ..... *albicosta.*

b^4. Fore wing with the medial line not angled inwards at discal fold.

a^5. Fore wing with whitish costal fascia.

a^6. Fore wing with whitish discoidal bar ..... *prolenca.*

b^6. Fore wing with blackish discoidal spot ..... *albifascia.*

b^5. Fore wing with yellow costal fascia ..... *flavicosta.*

c^5. Fore wing without pale costal fascia.

a^6. Fore wing yellow tinged with red ..... *atrifusa.*

b^6. Fore wing of male brownish ochreous, of female dark red-brown or fuscous brown with white apical patch.

a^7. Hind wing not suffused with fuscous.

a^8. Fore wing with subterminal series of small blackish spots ..... *ochrochroa.*

b^8. Fore wing without subterminal series of blackish spots ..... *minuta.*

b^7. Hind wing suffused with fuscous ..... *apicata.*

c^6. Fore wing of female dark chocolate-brown without white apical patch ..... *angelicina.*

d^6. Fore wing of male fuscous grey, of female white suffused with ochreous brown ..... *candicans.*

c^4. Fore wing whitish tinged with purplish pink.

a^5. Fore wing irrorated with black ..... *carneotincta.*

b^5. Fore wing not irrorated with black ..... *cinctincta.*

f^3. Fore wing grey tinged with brown.

a^4. Fore wing with black subapical spot..... *apicipunctu.*

b^7. Fore wing without black subapical spot.
a^8. Fore wing with black points beyond subterminal line.
a^9. Fore wing without pale patch on costa beyond postmedial line ..... *poliochroa.*
b^9. Fore wing with pale patch on costa beyond postmedial line ..... *pulvinariæ.*
b^8. Fore wing without black points beyond subterminal line ..... *glaucochroa.*
g^6. Fore wing white thickly irrorated with rufous.
a^7. Fore wing with rufous apical mark ..... *silicula.*
b^7. Fore wing without rufous apical mark ..... *coccidiphaga.*
h^6. Fore wing white not irrorated with rufous..... *vestina.*
c^3. Fore wing with the medial line nearly straight and inwardly oblique.
a^4. Fore wing with the basal half pure white, the terminal half blood-red ..... *seminivea.*
b^4. Fore wing with the basal half yellow, the terminal half purplish pink.
a^5. Hind wing yellow.
a^6. Fore wing with the medial line moderately oblique ..... *anachoresis.*
b^6. Fore wing with the medial line very oblique ... *perobliqua.*
b^5. Hind wing white tinged with brown ..... *acarodes.*
c^4. Fore wing with the basal half ochreous white, the postmedial area more or less suffused with pink.
a^5. Fore wing with the postmedial line acutely angled outwards below costa and slightly incurved below vein 4.
a^6. Fore wing with geminate whitish spots defined on outer side by black on subterminal line above tornus ..... *cochylioides.*
b^6. Fore wing with the subterminal line whitish defined on inner side by rufous and pink above tornus ..... *lentirosea.*
b^5. Fore wing with the postmedial line excurved from below costa to vein 4, then incurved ..... *roseana.*
d^4. Fore wing with the basal half ochreous white, the terminal half rufous and greyish.
a^5. Fore wing with the postmedial line strongly excurved below costa and incurved below vein 4... *glaucizona.*
b^5. Fore wing with the postmedial line slightly excurved below costa and incurved below vein 4... *ochrobasis.*
e^4. Fore wing with the basal half rufous, the terminal half white tinged with grey..... *thermobasis.*
f^4. Fore wing with the basal and terminal halves concolorous.
a^5. Fore wing with the postmedial line angled outwards below costa and incurved or oblique below vein 4.
a^6. Fore wing with the postmedial line bent outwards to inner margin ..... *exigua.*
Fore wing with the postmedial line not bent outwards to inner margin.
c^7. Fore wing with the postmedial line incurved below vein 4..... *parva.*
b^7. Fore wing with the postmedial line oblique below vein 4.
a^8. Fore wing ochreous white tinged with rufous *rivula.*
b^8. Fore wing very pale yellow ..... *flavido.*
c^8. Fore wing white ..... *albipennis.*

b^5. Fore wing with the postmedial line angled outwards at middle.
a^6. Fore wing with the postmedial line slightly angled outwards at middle.
a^7. Fore wing with the antemedial band olive-brown ..... *noctualis.*
b^7. Fore wing with the antemedial band rufous... *vagneri.*
b^6. Fore wing with the postmedial line acutely angled outwards at middle.
a^7. Fore wing with the basal area white tinged with grey or rufous.
a^8. Fore wing with curved white antemedial band ..... *elychrysi.*
b^8. Fore wing without curved white antemedial band.
a^9. Fore wing with the markings very indistinct, grey ..... *permixta.*
b^9. Fore wing with the markings pale olive-green..... *viridula.*
c^9. Fore wing with the markings more or less strongly tinged with rufous.
a^{10}. Fore wing with the postmedial line slightly bent outwards to inner margin... *candidana.*
b^{10}. Fore wing with the postmedial line not bent outwards to inner margin ..... *ornatula.*
b^7. Fore wing with the basal area pure white.
a^8. Fore wing with the bands dark ochreous brown ..... *odontophora.*
b^8. Fore wing with the bands rufous..... *bifasciata.*
c^7. Fore wing with the basal area rufous ..... *leucodesma.*
c^5. Fore wing with the postmedial line excurved below costa and at middle.
a^6. Fore wing deep rufous.
a^7. Fore wing with the cilia white mixed with brown ..... *lozostropha.*
b^7. Fore wing with the cilia not white..... *speratia.*
b^6. Fore wing ochreous tinged with brown ..... *sabia.*
c^6. Fore wing brownish white..... *mesophaea.*
d^6. Fore wing pale yellowish ..... *hausa.*
e^6. Fore wing with the ground-colour pure white.
a^7. Fore wing with the medial line represented by the outer edge of the dark brown antemedial band ..... *debilis.*
b^7. Fore wing with the medial line rufous.
a^8. Fore wing with oblique rufous streak from apex ..... *compuncta.*
b^8. Fore wing without oblique rufous streak from apex.
a^9. Hind wing not suffused with brown ..... *tinitima.*
b^9. Hind wing suffused with brown ..... *nimula.*
c^7. Fore wing with the medial line pale yellowish. *suppuncta.*
d^5. Fore wing with the postmedial line slightly excurved below costa, then oblique ..... *ephimera.*
e^5. Fore wing with the postmedial line oblique throughout.
a^6. Fore wing pale yellow ..... *jocularis.*
b^6. Fore wing white tinged with olive-green..... *subroseana.*
c^6. Fore wing grey thickly irrorated with red-brown ..... *subpunctana.*
d^3. Fore wing with the medial line excurved below costa, then more or less inwardly oblique.

a^4. Fore wing with the basal half yellow, the terminal half purplish pink.
a^5. Fore wing without subterminal series of white points ..... *pannonica.*
b^5. Fore wing with subterminal series of white points ..... *amasina.*
c^5. Fore wing with subterminal series of short white streaks ..... *pulchra.*
b^4. Fore wing with the basal and terminal halves concolorous.
a^5. Fore wing with the medial line slightly incurved at discal and submedian folds.
a^6. Fore wing variegated with fiery red and black. *delicata.*
b^6. Fore wing not variegated with fiery red and black ..... *minima.*
b^5. Fore wing with the medial line slightly incurved at submedian fold only.
a^6. Fore wing with the postmedial line present ... *scitula.*
b^6. Fore wing with the postmedial line absent ..... *leucota.*
c^5. Fore wing with the medial line strongly angled inwards on median nervure.
a^6. Fore wing grey suffused with rufous ..... *therma.*
b^6. Fore wing grevish white suffused with brown .. *respersa.*
c^6. Fore wing white tinged with ochreous..... *grata.*
d^5. Fore wing with the medial line very slightly angled inwards on median nervure
a^6. Fore wing white not tinged with olive-green.
a^7. Fore wing with the medial rufous band extending to costa and slightly oblique below discal fold ..... *siticulosa.*
b^7. Fore wing with the medial rufous band obsolete on costal area and very oblique below discal fold ..... *albida.*
b^6. Fore wing suffused with olive-green..... *chlorotica.*
e^5. Fore wing with the medial line oblique and straight from below costa to inner margin.
a^6. Fore wing white tinged with olive-green ..... *viridis.*
b^6. Fore wing white with rufous terminal band ... *pura.*
c^6. Fore wing white tinged with rufous especially on terminal area ..... *pallidula.*
d^6. Fore wing white not tinged with rufous ..... *suppura.*
e^6. Fore wing whitish suffused and irrorated with rufous ..... *serrosia.*
f^6. Fore wing red-brown with white costal fascia... *lacteicosta.*
e^3. Fore wing with the medial line erect, excurved at middle and incurved below costa and in submedian interspace ..... *deserti.*
f^3. Fore wing with the medial line moderately angled outwards below costa, then oblique.
a^4. Fore wing with the terminal area purplish pink.
a^5. Fore wing with dark streaks in the interspaces beyond the cell ..... *purpurina.*
b^5. Fore wing without dark streaks in the interspaces beyond the cell ..... *rosea.*
c^4. Fore wing with the terminal area not purplish pink.
a^5. Fore wing white suffused with olive-brown.
a^6. Fore wing with the white band between the medial line and the indistinct postmedial line not prominent ..... *parallela.*
b^6. Fore wing with pure white band between the medial line and distinct postmedial line ..... *pusilla.*

b^5. Fore wing white, the inner half of medial area suffused with rufous ..... *sphragidota.*
c^5. Fore wing white irrorated with red-brown ..... *subcinerea.*
d^5. Fore wing white faintly tinged with rufous..... *gayneri.*
e^5. Fore wing strongly suffused with pinkish red.
a^6. Hind wing with antemedial line defined on outer side by whitish ..... *heraudi.*
b^6. Hind wing without antemedial line..... *rothenbergi.*
f^5. Fore wing strongly suffused with dark purplish red ..... *trilinea.*
g^5. Fore wing with the medial line acutely angled outwards below costa.
a^4. Fore wing with the postmedial line excurved below costa, then minutely waved, incurved or oblique below vein 4.
a^5. Fore wing with the medial line not angled outwards to below apex.
a^6. Wings white suffused with brown..... *curvata.*
b^6. Wings brownish ochreous.
a^7. Fore wing with the medial line not defined on outer side by whitish ..... *ochreola.*
b^7. Fore wing with the medial line defined on outer side by whitish.
a^8. Fore wing with the postmedial area not irrorated with fuscous..... *brachygonia.*
b^8. Fore wing with the postmedial area irrorated with fuscous except towards costa ..... *gratiosa.*
c^6. Wings purplish red ..... *radda.*
b^5. Fore wing with the medial line angled outwards to below apex.
a^6. Hind wing with the postmedial line minutely dentate.
a^7. Wings not orange-red.
a^8. Wings with the medial line defined on outer side by whitish ..... *abrupta.*
b^8. Wings with the medial line not defined on outer side by whitish ..... *versicolora.*
b^7. Wings orange-red..... *aurantiaca.*
b^6. Hind wing with the postmedial line oblique and almost straight ..... *crassiuscula.*
b^4. Fore wing with the postmedial line angled outwards below costa, then oblique.
a^5. Fore wing with the medial line not angled outwards to below apex.
a^6. Fore wing yellowish tinged with rufous or purplish red.
a^7. Fore wing with the costal area yellowish white to beyond middle..... *cinnamomea.*
b^7. Fore wing with the costal area concolorous ... *obliqualis.*
b^6. Fore wing rufous with the costal area white . . *leucographa.*
c^6. Fore wing greyish tinged with brown.
a^7. Head and tegulæ orange-yellow ..... *bilineata.*
b^7. Head and tegulæ rufous.
a^8. Fore wing with the medial line not defined on outer side by white..... *daphæna.*
b^8. Fore wing with the medial line defined on outer side by white ..... *polygrammata.*
b^5. Fore wing with the medial line angled outwards to below apex.
c^6. Fore wing with the subcostal and terminal [illegible] *cosmeta.*

b^6. Fore wing with the subcostal and terminal areas not pink.
a^7. Fore wing with the antemedial line absent ... *heterogramma.*
b^7. Fore wing with the antemedial line present ... *ragusana.*
b. Fore wing with the medial line absent.
a^1. Fore wing with the antemedial line present.
a^2. Fore wing with the postmedial line angled outwards below costa, then oblique.
a^3. Fore wing with the subterminal line present ..... *rubiginea.*
b^3. Fore wing with the subterminal line absent ..... *castanea.*
b^2. Fore wing with the postmedial line evenly curved ..... *aplecta.*
c^2. Fore wing with the postmedial line bent outwards below costa and oblique or incurved below vein 4.
a^3. Fore wing without subterminal series of small dentate black marks.
a^4. Fore wing with whitish patch beyond postmedial line on inner area ..... *obscura.*
b^4. Fore wing without whitish patch beyond postmedial line on inner area ..... *tristalis.*
b^3. Fore wing with subterminal series of small dentate black marks.
a^4. Fore wing with the antemedial line angled outwards below costa then oblique.
a^5. Fore wing with blackish discoidal spot ..... *reticulata.*
b^5. Fore wing with white discoidal striga ..... *rubra.*
b^4. Fore wing with the antemedial line excurved from costa to submedian fold, then incurved ..... *dubia.*
d^2. Fore wing with the postmedial line angled outwards to the subterminal line at vein 3, then bent inwards ..... *costimacula.*
e^2. Fore wing with the postmedial line excurved from costa to vein 2 and angled inwards in submedian fold ..... *ignefusa.*
b^1. Fore wing without antemedial line.
a^2. Fore wing with conical rufous patch on inner medial area ..... *communimacula.*
b^2. Fore wing without conical rufous patch on inner medial area.
a^3. Hind wing with the terminal area pink.
a^4. Hind wing with subterminal series of black and white points ..... *rhodocraspis.*
b^4. Hind wing with white subterminal line.
a^5. Fore wing wholly tinged with red-brown..... *carneola.*
b^5. Fore wing white at base.
a^6. Fore wing with the subterminal line angled outwards at middle ..... *amabilis.*
b^6. Fore wing with the subterminal line excurved at middle ..... *roseomixea.*
c^4. Hind wing with dark subterminal line ..... *ecthæmata.*
b^3. Hind wing with the terminal area not pink.
a^4. Fore wing with rufous terminal band except towards apex ..... *vestalis.*
b^4. Fore wing without rufous terminal band.
a^5. Head orange.
a^6. Hind wing pale yellow.
a^7. Fore wing yellowish white ..... *flaviciliata.*
b^7. Fore wing not yellowish.
a^8. Fore wing with broad yellow costal fascia ..... *xanthocraspis.*

b^{6}. Fore wing without broad yellow costal fascia ..... *plumbosa.*

b. Hind wing whitish.

a^{7}. Fore wing with brown bar from costa before apex with two black points on it ..... *coila.*

b^{7}. Fore wing with subterminal series of minute black points.....

b^{5}. Head whitish.

a^{8}. Fore wing with two oblique yellow striæ from costa beyond middle ..... *flavistriata.*

b^{8}. Fore wing without oblique yellow striæ from costa.

a^{7}. Fore wing with the postmedial line present ..... *asperpa.*

b^{7}. Fore wing with the postmedial line absent.

a^{8}. Fore wing suffused with fiery red ..... *pyrastis.*

b^{8}. Fore wing suffused with rufous.

a^{9}. Fore wing with black points in middle of cell and on discocellulars..... *conspersa.*

b^{9}. Fore wing without black points in cell and on discocellulars.

a^{10}. Fore wing irrorated with brown or with some subterminal black scales..... *griseola.*

b^{10}. Fore wing without dark irroration or subterminal black scales.

a^{11}. Fore wing with the apex not produced and acute .....

b^{11}. Fore wing with the apex produced and acute .....

c^{8}. Fore wing not suffused with rufous.

a^{9}. Fore wing with yellow ante- and postmedial bands .....

b^{9}. Fore wing without yellow ante- and postmedial bands.

a^{10}. Fore wing with black points in middle of cell and on discocellulars.

a^{11}. Fore wing with the terminal area tinged with pink .....

b^{11}. Fore wing with the terminal area not tinged with pink.

a^{12}. Fore wing white tinged with yellow ... *vollastoni.*

b^{12}. Fore wing white irrorated with brown .....

b^{10}. Fore wing with black discoidal point only.

a^{11}. Fore wing irrorated with brown ..... *penicillata.*

b^{11}. Fore wing not irrorated with brown.

a^{12}. Fore wing tinged with ochreous brown ..... *uninotata.*

b^{12}. Fore wing creamy white ..... *albivestalis.*

c^{10}. Fore wing without black discoidal point.

a^{11}. Fore wing creamy white, the costa pure white.

a^{12}. Fore wing tinged with brown and with dark irroration.

a^{13}. Fore wing with white streaks on the veins.

a^{14}. Fore wing with fine brown terminal line.

a^{15}. Fore wing not irrorated with black ..... *subvenata.*
b^{15}. Fore wing irrorated with black..... *albivena.*
b^{14}. Fore wing without brown terminal line ..... *leuconeura.*
b^{13}. Fore wing without white streaks on the veins.
a^{14}. Fore wing with the interspaces irrorated with black..... *conistrota.*
b^{14}. Fore wing with the interspaces not irrorated with black ..... *bulla.*
b^{12}. Fore wing not tinged with brown and without dark irroration.
a^{13}. Fore wing with the termen tinged with yellow..... *virginalis.*
b^{13}. Fore wing with the termen not tinged with yellow..... *deserta.*
b^{11}. Fore wing wholly creamy white ..... *straminea.*
a^{11}. Fore wing pale yellow..... *flavia.*

5104. **Eublemma eupethecica**, n. sp. (Plate CLI. fig. 5.)

♀. Head and tegulæ dark brown mixed with grey; thorax and abdomen grey with a few dark brown and black scales; legs thickly irrorated with fuscous. Fore wing grey finely pencilled with brown and sparsely irrorated with black; a small subbasal black spot on costa with a striga arising from it; a small antemedial black spot on costa with a fine obliquely curved line from it to inner margin; a fine curved medial line with small black spots at costa and on discocellulars; postmedial line black, angled outwards at veins 6 and 4 and inwards at discal and submedian folds, some black points beyond it on costa; subterminal line fine, black, dentate almost to the fine black terminal line; cilia suffused with fuscous. Hind wing grey tinged with brown and slightly irrorated with black; an indistinct black medial line from discal fold to inner margin; traces of a punctiform postmedial line and of a minutely waved subterminal line with some whitish on its inner side except on costal area; a fine black terminal line; cilia tinged with fuscous; the underside white faintly tinged with brown and irrorated with black, traces of a curved medial line and minutely waved postmedial and subterminal lines.

Hab. Transvaal, Kranspruit (*Janse*), 1 ♀ type. *Exp.* 18 millim.

5105. **Eublemma melabela**, n. sp. (Plate CLI. fig. 6.)

♂. Head, thorax, and abdomen grey-white faintly tinged with brown and irrorated with fuscous; palpi suffused with fuscous at sides; pectus, legs, and ventral surface of abdomen white, the fore tibiæ and the tarsi blackish ringed with white. Fore wing grey-white thickly irrorated with red-brown; a triangular fuscous brown subbasal spot on costa; antemedial line reddish brown, rather diffused, waved and inwardly oblique, expanding into a triangular fuscous spot at costa; medial line with fuscous brown spot at costa,

then reddish, rather diffused, excurved in cell, then inwardly oblique; postmedial line reddish brown slightly defined by white on outer side, forming a triangular spot at costa, then punctiform, excurved to vein 4, then inwardly oblique and sinuous; subterminal line whitish, produced as short streaks to termen at veins 7, 6, 5, 4, 3 with minute black streaks on them at veins 7, 5, 4; a fine whitish line at base of cilia. Hind wing whitish thickly irrorated with red-brown except at base and on costal area; a diffused brown medial line except on costal area; postmedial black points on veins 4, 3, 2, 1 defined by white on outer side; a slight dentate white subterminal line from discal fold to inner margin; a terminal series of white points; a fine white line at base of cilia; the underside white, the apex slightly tinged with brown.

Hab. Beloochistan, Quetta (*Nurse*), 1 ♂ type. *Exp.* 32 millim.

5106. Eublemma epistrota, n. sp. (Plate CLI. fig. 7.)

♀. Head and tegulæ red-brown mixed with some grey; thorax and abdomen grey-white; pectus, legs, and ventral surface of abdomen white, the tarsi fuscous ringed with white. Fore wing white thickly irrorated with brown; subbasal line represented by brown points on costa and in cell; the antemedial line with brown spot on costa and bar in cell nearer base, then sinuous; a red-brown medial line slightly defined on outer side by white, excurved at discocellulars on which there is a black striga; postmedial line brown slightly defined on outer side by white, excurved to vein 4, incurved in submedian fold and excurved above inner margin: the postmedial area with some white points on costa and red-brown maculate band; subterminal line slight, white with series of black points on its outer edge, excurved below costa and at middle, incurved at discal and subterminal folds and bent outwards to tornus: some rufous at apex and a fine rufous terminal line; cilia with a fine white line at base. Hind wing white suffused with brown: a punctiform dark terminal line slightly defined on inner side by white; cilia white tinged with brown at tips; the underside white irrorated with brown, a terminal series of black points.

Hab. Punjab, Kangra (*Dudgeon*), 1 ♀ type. *Exp.* 20 millim.

5107. Eublemma velox.

Noctua velox, Hübn. Eur. Schmett., Noct. ii. 507, 515 (1818): Staud. Cat. Lep. pal. p. 226.
Larentia caliginata, Treit. Schmett. Eur. vi. 2. p. 137 (1828).
Hercyna mendacialis, Treit. Schmett. Eur. vii. p. 183 (1829): Dup. Lep. Fr., Suppl. iv. p. 388, pl. 81. f. 5.
Anthophila amœnula, Rambr. Ann. Sci. Obs. 1829. p. 257, pl. 9. f. 9; Boisd. Icones, pl. 71. f. 4.
Thalpochares velocior, Staud. Iris, v. p. 288 (1892).

Head and thorax grey-white, the scales pencilled with brown: pectus, legs, and abdomen grey-white tinged with brown. Fore

wing grey-white irrorated with fuscous; a subbasal fuscous spot on costa; antemedial line represented by a black spot on costa and a rather diffused very indistinctly double waved line from middle of cell to inner margin; a slight blackish spot in middle of cell and pale discoidal bar defined on each side by diffused blackish; medial line represented by a black spot on costa and oblique minutely waved line from lower angle of cell to inner margin; postmedial line blackish, excurved below vein 7 and at median nervures, then angled inwards in submedian fold and excurved to inner margin; some blackish points beyond it on costa; subterminal line blackish, dentate, the area beyond it slightly darker; a terminal series of blackish striæ. Hind wing grey-white irrorated with fuscous except on costal area and in submedian fold; traces of punctiform medial and postmedial lines; a dentate subterminal line defined by whitish on inner side; a terminal series of dark striæ; the underside whitish irrorated with fuscous.

Ab. 1. *velocior*. Larger; fore wing suffused with pale rufous or greyer ochreous.—Sicily, Taurus, Syria.

Hab. France, Sand and Leech Colls.; Spain, Catalonia, Murcia; Italy, Capri (*C. S. Browne*); Sicily, Zeller Coll.; Istria; Algeria; Balcan States; Armenia; Asia Minor, Bithynia, Lydia, Taurus; Syria; Cyprus, Zeller Coll. *Exp.* 20–26 millim.

5108. Eublemma contingens.

Metachrostis contingens, Moore, P. Z. S. 1888, p. 412; Butl. Ill. Het. B. M. vii. p. 65, pl. 129. f. 13; Hmpsn. Moths Ind. ii. p. 325.

Head, thorax, and abdomen grey-white tinged with red-brown; pectus, legs, and ventral surface of abdomen white, the fore tibiæ and tarsi fuscous ringed with white. Fore wing grey-white suffused and irrorated with reddish brown; subbasal line rather diffused, brown, from costa to submedian fold; antemedial line double, brown, diffused, waved, the outer line with blackish spot at costa; a minute black point in middle of cell and double diffused brown discoidal bars; medial line with blackish bar from costa and waved brown line from angle of cell to inner margin; postmedial line with blackish spot at costa, oblique from below costa to vein 6, then very minutely dentate and angled inwards in submedian fold, some whitish points beyond it on costa; subterminal line whitish defined on inner side by fuscous, dentate; a terminal series of striæ. Hind wing whitish tinged and irrorated with brown except on costal area and in submedian fold; ill-defined minutely waved blackish medial and postmedial lines from discal fold to inner margin, interrupted at submedian fold; a slight dentate subterminal line defined by whitish on inner side, except on costal area and in submedian fold; a terminal series of dark striæ; the underside brownish white.

Hab. Punjab, Dharmsála (*Hocking*), 1 ♂, 1 ♀ type, Mean Meer (*Harford*), 1 ♀, Lahore (*Rothney*), 2 ♂, 2 ♀, Allahabad, 1 ♂. *Exp.* 20–22 millim.

5109. Eublemma quinaria. (Plate CLI. fig. 8.)

Leptosia quinaria, Moore, P. Z. S. 1881, p. 371; Hmpsn. Moths Ind. ii. p. 326.

Head, thorax, and abdomen grey tinged with rufous; pectus, legs, and ventral surface of abdomen white, the legs tinged with brown. Fore wing grey suffused with rufous and finely irrorated with brown; a rufous subbasal bar from costa where it is blackish; antemedial line rather diffused, rufous with black spot at costa, slightly excurved below costa and cell; a rather diffused rufous medial line with blackish spot at costa, excurved in cell; postmedial line brown slightly defined on outer side by white, excurved from below costa to submedian fold; subterminal line whitish defined on outer side by fuscous, minutely dentate; a terminal series of slight brown lunules; a fine white line at base of cilia. Hind wing grey-white tinged with rufous and irrorated with black except on costal area; ill-defined blackish medial and postmedial lines on inner area defined on outer side by whitish and traces of a minutely waved pale subterminal line; a terminal series of slight dark striæ and fine whitish line at base of cilia; the underside white, the terminal area suffused with brown from apex to discal fold.

Ab. 1. Fore wing with the lines more prominently rufous; hind wing with the medial line rufous and a patch before subterminal line below vein 4.—E. Africa.

Hab. Br. E. Africa, Tana R. (*Crawshay*), 1 ♀, Allahabad, 1 ♂, Manpuri, 1 ♂, 3 ♀ type; Sind, Karáchi; Bombay, Mhow; Madras, Ooty (*Campbell*), 1 ♀. *Exp.* 22–24 millim.

5110. Eublemma brunnea.

Acontia brunea, Hmpsn. Ill. Het. B. M. viii. p. 74, pl. 145. f. 11 (1891); id. Moths Ind. ii. p. 332.

Head and thorax grey tinged with olive and mixed with fuscous; palpi, frons, and tegulæ with some crimson scales, the last blackish at tips; tibiæ with some crimson scales, the tarsi black with pale rings; abdomen grey suffused with fuscous and with slight pale segmental lines, the ventral surface whitish. Fore wing grey tinged with olive-brown and thickly irrorated with black; subbasal line represented by a black point on costa; antemedial line with small black spot on costa, then very indistinct, waved; reniform indistinctly defined by blackish, elliptical; medial line with small black spot at costa, very indistinct and excurved round end of cell, then more distinct below submedian fold; postmedial line blackish, slightly excurved below costa, oblique and minutely waved to vein 4 just before subterminal line, incurved below vein 3 and again excurved at vein 1, defined on outer side by slight white points; the veins of terminal area slightly streaked with black; subterminal line very indistinct, angled outwards at vein 7 and middle and inwards at

discal and submedian folds, a dark shade beyond it at discal fold; a minutely waved black line just before termen; cilia chequered olive and blackish. Hind wing fuscous brown; a fine dark terminal line and pale line at base of cilia; the underside greyish irrorated with brown, the terminal area suffused with fuscous, a black discoidal point and indistinct sinuous postmedial line.

Ab. 1. Thorax and fore wing with more olive-brown and less black.

Hab. Madras, Nilgiris (*Hampson*), 2 ♂ type. Palnis (*Campbell*), 1 ♂; Ceylon (*Pole*), 3 ♂, 2 ♀; Singapore (*Ridley*), 1 ♂, 1 ♀; Pulo Laut (*Doherty*), 1 ♂; Queensland, Townsville (*Dodd*), 1 ♀. *Exp.* 18–22 millim.

5111. Eublemma paurogrupta. (Plate CLVI. fig. 1.)

Metachrostris paurogrupta, Butl. Trans. Ent. Soc. 1886, p. 403.

Head, thorax, and abdomen grey tinged with brown and irrorated with fuscous and some crimson scales; tegulæ blackish at tips; tarsi blackish ringed with white; pectus and ventral surface of abdomen whitish. Fore wing bluish grey tinged with brown and irrorated with black: subbasal line black, slightly excurved below costa, then oblique and ending at vein 1; antemedial line with small black spot at costa, then indistinct, waved; a faint dark discoidal spot: medial line with small black spot at costa, then very indistinct, excurved round end of cell; postmedial line black slightly defined on outer side by white, excurved below costa, then incurved, excurved at veins 4, 3 almost to subterminal line, then incurved and again excurved above inner margin; subterminal line very indistinct, greyish, excurved at middle to termen, the veins of terminal area with slight deep crimson streaks; a minutely waved blackish line just before termen; cilia chequered black and greyish. Hind wing greyish suffused with brown; the cilia paler with a dark line through them; the underside grey irrorated with brown, the terminal area suffused with fuscous.

Hab. Queensland, Rockhampton, 1 ♀ type, Duaringa (*Arnold*), 6 ♂, Brisbane (*Turner*), 1 ♀. *Exp.* 20–24 millim.

*5112. Eublemma pyrosticta. (Plate CLI. fig. 9.)

Eublemma pyrosticta, de Joan. Bull. Soc. Ent. Fr. 1910, p. 202.

♀. Head, thorax, and abdomen grey mixed with fuscous brown. Fore wing purplish grey suffused with fuscous brown, the antemedial area whiter except at costa, the postmedial area white from discal fold to inner margin; antemedial line brown, irregularly waved, expanding at costa; reniform incompletely defined by black, rounded, an indistinct medial line excurved beyond the cell, then oblique; postmedial line double filled in with whitish, expanding at costa, oblique from costa to vein 6, then minutely waved, an elongate fiery red mark beyond it below vein 7; subterminal line

defined on outer side by somewhat dentate black marks from costa to discal fold, waved, angled inwards in discal fold; a terminal series of minute black lunules; cilia pale brown with white line at base. Hind wing grey suffused with fuscous brown, a waved white subterminal line from vein 3 to above tornus; a terminal series of minute black lunules; a fine white line at base of cilia; the underside with traces of curved brown postmedial line.

Hab. Réunion, Salazie, type † ♀ in Coll. Joannis. *Exp.* 22 millim.

5113. Eublemma thermosticta, n. sp. (Plate CLI. fig. 10.)

♂. Head and thorax brown mixed with grey; pectus, legs, and abdomen grey tinged with brown. Fore wing grey slightly tinged with brown and irrorated with fuscous: subbasal line represented by two dark points on costa; antemedial line brown, waved, inwardly oblique, with a slight dark shade before it; two blackish discoidal bars, the inner concave towards base, the outer convex; medial line dark, bent outwards beyond the cell, then oblique; postmedial line double, excurved below costa and at middle, then sinuous; subterminal line black, crenulate, with a dark shade before it on costal area and two pale rufous spots at middle; a terminal series of slight black lunules. Hind wing grey tinged with brown; some black irroration on vein 1, two slight postmedial striæ at vein 2 and traces of a waved subterminal line between veins 4 and 2 defined on inner side by ochreous white; a terminal series of dark striæ; the underside pale grey slightly irrorated with brown.

Hab. Transvaal (*Cholmley*), 1 ♂ type. *Exp.* 20 millim.

5114. Eublemma snelleni. (Plate CLI. fig. 11.)

Leptosia snelleni, Wllgrn. Œfv. Vet.-Akad. Förh. 1875, p. 112.
Epizeuxis æthiops, Dist. Nat. in Transvaal, p. 239, pl. ii. f. 2 (1892).

Head, thorax, and abdomen grey mixed with fuscous; pectus, legs, and ventral surface of abdomen white, the fore tibiæ and the tarsi blackish ringed with white. Fore wing grey suffused and thickly irrorated with fuscous; subbasal line represented by a curved black striga from costa, a blackish shade beyond it from costa to vein 1; a rather diffused black antemedial line, minutely waved and somewhat inwardly oblique; a black point in middle of cell and ill-defined double black discoidal bar; medial line black, excurved and rufous beyond the cell, then incurved and minutely waved; postmedial line black slightly defined on outer side by white, oblique from below costa to vein 6, excurved at middle, then angled inwards to submedian fold and again slightly excurved, some whitish and black points beyond it on costa; subterminal line black slightly defined on inner side by white and below veins 7 and 4 by small dentate rufous marks, dentate; a terminal series of black striæ. Hind wing grey tinged with brown and irrorated with black except on costal area and in submedian fold; punctiform black medial, postmedial,

and subterminal lines on inner half, the last with small rufous spots before it below vein 3 and near tornus; a terminal series of black striæ; the underside white, the costal and terminal areas slightly irrorated with brown.

Ab. 1. Fore wing paler, the rufous markings less prominent.

Ab. 2. Fore wing with the ante- and postmedial lines strong and black, the whole disk tinged with rufous.

Hab. Br. E. Africa, Machakos (*Crawshay*), 2 ♂; Mashonaland, Salisbury (*Marshall*), 1 ♀, Umtali (*Marshall*), 1 ♀; Transvaal, White R. (*Cooke*), 1 ♂, Piet Retief (*Crawshay*), 1 ♀, Pretoria (*Janse*), 2 ♂, 2 ♀; Natal, Howick (*Cregoe*), 2 ♂, Karkloof (*Marshall*), 1 ♂, 2 ♀, Durban (*Leigh*), 1 ♀; Basutoland, Maseru (*Crawshay*), 2 ♂, 1 ♀; Cape Colony, Transkei (*Miss F. Barrett*), 3 ♂, Annshaw (*Miss F. Barrett*), 5 ♂, 1 ♀. *Exp.* 20–24 millim.

5115. Eublemma nannata, n. sp. (Plate CLI. fig. 12.)

♂. Head, thorax, and abdomen greyish brown; pectus, legs, and ventral surface of abdomen paler, the tore tibiæ and the tarsi fuscous ringed with white. Fore wing grey-brown irrorated with fuscous; a black subbasal line, slightly excurved below costa and ending at submedian fold where there is some reddish beyond it; antemedial line black, waved, expanding into a small spot at costa; a black point in middle of cell with red spot beyond it before the black discoidal lunule concave towards base; medial line with black spot at costa, then oblique to beyond the cell where there is a red patch beyond it, then inwardly oblique and sinuous with a red patch before it in submedian interspace; postmedial line black slightly defined on outer side by grey, oblique to vein 6 and angled inwards in submedian interspace, some whitish points beyond it on costa; subterminal line black, dentate, slightly defined on inner side by white and with dentate red marks before it; a terminal series of slight black lunules. Hind wing grey-brown, the inner half with diffused black medial and postmedial lines except in submedian fold and a minutely dentate subterminal line slightly defined on inner side by pale rufous; a terminal series of slight dark striæ; the underside whitish irrorated with fuscous brown.

Ab. 1. Fore and hind wings with hardly a trace of the red markings.

Ab. 2. Fore and hind wings with the red markings entirely obsolete.

Hab. Madras, Palnis (*Campbell*), 1 ♂ type; Ceylon, Nawalapitiya (*Pole*), 1 ♂, Putlam (*Pole*), 1 ♂, Haputale (*Mackwood*), 1 ♀. *Exp.* 16–18 millim.

5116. Eublemma dardouini.

Bryophila dardouini, Boisd. Gen. & Ind. Meth. p. 96 (1840); Herr.-Schäff. Schmett. Eur., Noct. f. 258; Staud. Cat. Lep. pal. p. 226.
Anthophila mendacula, Frr. Neue Beitr. p. 66, pl. 330. f. 2 (1841), nec Treit.

Head and thorax dark reddish brown finely pencilled with grey;

abdomen grey-brown. Fore wing purple-grey thickly irrorated with dark red-brown; traces of a brown subbasal line from costa to vein 1; antemedial line indistinct, brown, waved, inwardly oblique; a brown point in middle of cell and double discoidal bar; medial line oblique from costa to beyond the cell, inwardly oblique and sinuous from vein 4 to inner margin; postmedial line brown, oblique from below costa to vein 6, incurved at discal fold, incurved and waved below vein 4; subterminal line grey slightly defined on outer side by brown and with a brown shade before it, minutely waved, slightly excurved below vein 7 and at middle; a terminal series of dark points; cilia with a fine grey line at middle. Hind wing grey-brown with a reddish tinge, the inner area with very ill-defined blackish medial, postmedial, and subterminal lines except in submedian fold; a terminal series of dark points; cilia with a fine grey line at middle; the underside grey thickly irrorated with brown.

Ab. 1. Fore wing with the shade before subterminal line rufous.

Hab. France, Hyères, Leech Coll.; Austria, Zeller Coll.; Hungary, Frey and Leech Colls.; Italy; Balkan States; Asia Minor, Bythinia, Taurus; Syria (*de la Garde*), 1 ♀. *Exp.* 22 millim.

Larva. Kirby, Butt. & Moths Eur. p. 287; Hffm. Raup. p. 141, pl. 136. f. 9. Dull yellow with paler intersegmental bands and brownish red transverse spots. Food-plant, *Anthericum ramosum*. 5–6.

5117. Eublemma tritonia. (Plate CLI. fig. 13.)

Metachrostis tritonia, Hmpsn. Ann. S. Afr. Mus. ii. p. 415 (1902).

♀. Head, thorax, and abdomen grey slightly tinged with rufous and irrorated with black; the tarsi blackish ringed with white. Fore wing grey tinged with rufous, especially on costal area, and irrorated with black; subbasal line dark, waved, from costa to median nervure; antemedial line formed of black scales and slightly defined on outer side by rufous, incurved in cell, angled outwards in submedian fold, inwards on vein 1 and outwards above inner margin; an elliptical black discoidal spot placed on the rufous medial shade which is oblique to lower angle of cell, then incurved; postmedial line blackish, dentate, excurved below costa and at middle and incurved at discal and submedian folds; subterminal line absent. Hind wing grey thickly irrorated with fuscous brown and with faint traces of diffused postmedial and subterminal lines; the underside less thickly irrorated with brown.

Hab. Mashonaland, Umtali (*Marshall*), 1 ♀ type. *Exp.* 38 millim.

5118. Eublemma miasma.

Erastria miasma, Hmpsn. Ill. Het. B. M. viii. p. 73, pl. 145. f. 16 (1891) ♂; id. Moths Ind. ii. p. 325.

Head, thorax, and abdomen brown mixed with grey; pectus and

ventral surface of abdomen whitish, the tarsi fuscous ringed with white. Fore wing purplish grey irrorated and suffused with fuscous brown; subbasal line represented by a fuscous bar from costa; antemedial line rather diffused, fuscous, waved, with a dark shade before it; a small black spot in middle of cell with a brown spot above it on costa; two blackish discoidal bars connected by a slight streak at middle; medial line with dark spot at costa, excurved beyond the cell, then oblique and sinuous; postmedial line indistinctly double filled in with whitish, oblique from costa to vein 6, then slightly sinuous and incurved below vein 4, some pale points beyond it on costa; subterminal line grey defined on outer side by black and on inner by dark suffusion, somewhat dentate and excurved below vein 7 and at middle; a fine dark terminal line. Hind wing grey suffused with fuscous brown, the inner area with traces of blackish medial, postmedial, and subterminal lines interrupted at submedian fold; a terminal series of dark striæ; the underside grey irrorated and suffused with brown and with traces of waved postmedial and subterminal lines.

Hab. C. China, Kiukiang (*Pryer*), 1 ♂; Madras, Nilgiris (*Hampson*), 2 ♂ type; Ceylon, Kegalle (*Alston*), 1 ♀. *Exp.* 81–20 millim.

5119. **Eublemma misturata**, n. sp. (Plate CLI. fig. 14.)

♀. Head, thorax, and abdomen dark brown with a greyish gloss; the pectus and ventral surface of abdomen rather paler, the fore tarsi blackish ringed with white. Fore wing purplish grey suffused with dark brown, the terminal area greyer; subbasal line represented by a dark bar from costa; antemedial line rather diffused, dark, inwardly oblique and slightly sinuous; two black discoidal bars; medial line with blackish spot at costa, excurved round the cell, then oblique; postmedial line black slightly defined on outer side by grey, oblique from below costa to vein 6 and incurved below vein 4, some pale points on a blackish shade beyond it on costa; subterminal line black defined on inner side by grey and at middle by a minute reddish ochreous lunule, minutely waved and slightly excurved below vein 7 and at middle; a terminal series of slight black lunules. Hind wing dark fuscous brown with traces of a dark postmedial line on inner area and of a minutely waved subterminal line slightly defined on inner side by whitish, from vein 4 to inner margin; a terminal series of slight black striæ; the underside fuscous brown tinged with grey and with traces of a dark postmedial line.

Hab. Uganda, Ketoma (*Doggett*), 1 ♀ type. *Exp.* 24 millim.

5120. **Eublemma sciaphora**, n. sp. (Plate CLI. fig. 15.)

♂. Head, thorax, and abdomen white faintly tinged with brown; palpi and frons more rufous; antennæ dark brown; fore legs

brown, the tarsi ringed with white. Fore wing white slightly tinged with rufous; a dark brown subbasal spot on costa with striga from it in cell; antemedial line represented by a blackish spot on costa and rather diffused patch in and below cell; reniform faintly defined by brown, narrow and constricted at middle, medial line with small black spot at costa, then indistinct and minutely waved, excurved beyond the cell, then oblique; postmedial line blackish, obliquely excurved from costa to vein 4 and angled inwards in subterminal fold, some black points beyond it from costa to discal fold; submedian line slight, blackish, dentate, with stronger dentate black marks below costa, at veins 6 and 5, and in submedian fold; cilia white with brown mixed. Hind wing whitish slightly suffused with brown; traces of a curved medial line and of a postmedial line with black points on veins 5 to 1; traces of a minutely dentate blackish subterminal line; a fine dark terminal line except towards tornus; cilia white mixed with brown; the underside nearly pure white.

Hab. Sierra Leone (*Clements*), 1 ♂ type. *Exp.* 18 millim.

5121. **Eublemma phæapera**, n. sp. (Plate CLI. fig. 16.)

♂. Head and tegulæ reddish brown mixed with some grey; palpi with slight white ring at base of 3rd joint; thorax and abdomen grey irrorated with brown; tarsi blackish ringed with white. Fore wing grey irrorated with brown; a brown patch on base of costa followed by rufous streaks on costa before and beyond the antemedial blackish line which expands into a black patch on costa, inwardly oblique and slightly incurved at vein 1; orbicular represented by a brown point; reniform with white centre defined by brown, small, figure-of-eight-shaped; medial line brown, blackish at costa, then minutely dentate, excurved beyond the cell and oblique to inner margin; postmedial line black, excurved from below costa to vein 3, reduced to points below vein 5 and slightly angled inwards in submedian fold, traces of another line beyond it, blackish and distinct from below costa to discal fold; apical area brown; subterminal line fine, white, minutely dentate, defined on outer side by small dentate black marks on the dark apical area, then slightly defined by fuscous; a terminal series of slight brown streaks faintly defined by white on inner side; cilia brown mixed with some white and with a fuscous patch at discal fold. Hind wing grey suffused with fuscous brown; minutely waved black medial, postmedial, and subterminal lines from discal fold to inner margin slightly defined by white and with a rufous spot between postmedial and subterminal lines at median nervules; a terminal series of blackish striæ on slight pale marks; cilia rufous, paler at tips; the underside with the lines entire and indistinct, the postmedial line with minute black streaks on the veins.

Hab. S. Nigeria, Lagos (*Boag*), 1 ♂ type. *Exp.* 20 millim.

5122. Eublemma anticalis. (Plate CLI. fig. 17.)

Zalaca anticalis, Wlk. xxxiv. 1202 (1865).

♂. Head and tegulæ fuscous brown; thorax and abdomen whitish; fore and mid tibiæ and tarsi fuscous brown ringed with white. Fore wing white slightly suffused and irrorated with rufous; a black patch at base of costa; a triangular antemedial black spot on costa defined by white, a small black spot below it in cell with a rufous line from it to inner margin, incurved at vein 1; a small rufous discoidal spot with blackish striga above it from costa and sinuous rufous line from lower angle of cell to inner margin; traces of two rufous lines beyond the cell, excurved from costa to discal fold, then sinuous; a postmedial triangular black spot on costa with oblique line from it to discal fold defined on each side by white, then a white line with minute black points on its inner side, angled inwards at submedian fold, some black beyond the white line defining the outer side of the oblique line from the costal spot and two black points on costa; a white subterminal line, angled outwards at vein 7, excurved at middle and ending on termen above tornus, some black on its outer edge between vein 7 and discal fold; the apical area rufous before the subterminal line and grey beyond it; a slight brown terminal line. Hind wing whitish tinged with red-brown from origin of vein 2 to termen between discal and submedian folds; medial black points on veins 2 and 1 and postmedial points on veins 6 to 1 with traces of a whitish line beyond them; traces of a waved whitish subterminal line; a terminal series of black points: the underside whitish with postmedial series of minute dark points on the veins.

Hab. Natal (*Plant*), 1 ♂ type. *Exp.* 22 millim.

5123. Eublemma egens.

Chlumetia egens, Moore, Lep. Ceyl. iii. p. 68, pl. 151. f. 9 (1884); Hmpsn. Moths Ind. ii. p. 325.

Head and thorax whitish suffused with rufous; abdomen whitish suffused with fuscous brown; pectus, legs, and ventral surface of abdomen white, the fore tibiæ and tarsi fuscous ringed with white. Fore wing grey thickly irrorated with fuscous except on inner half of medial area from below costa and a patch beyond the discocellulars which are pale rufous; a subbasal blackish spot on costa; antemedial line with blackish spot at costa, then waved and inwardly oblique with a dark shade before it; a slight dark point in middle of cell and double diffused discoidal bar; medial line with blackish spot at costa, then excurved beyond the discocellulars, faint and rufous, then inwardly oblique, sinuous and defined on outer side by whitish; postmedial line blackish slightly defined on inner side by whitish, expanding into a spot at costa, oblique from below costa to vein 6, then rather punctiform to vein 4 and angled inwards in submedian fold, some whitish points beyond it on costa; sub-

terminal line fine, black, dentate, slightly defined on inner side by white and with some pale rufous before it from below costa to vein 3; a terminal series of blackish striæ. Hind wing whitish suffused with brown except on costal area and in submedian fold; diffused blackish medial and postmedial lines except on costal area and in submedian fold; a dentate white subterminal line slightly defined on outer side by black and with some pale rufous before it at middle; a terminal series of blackish striæ; the underside white, the costa faintly tinged with brown, a postmedial series of minute dark striæ on the veins.

Ab. 1. Fore wing with the medial area redder, extending to the postmedial line beyond the cell and to beyond medial line on inner area.

Hab. Ceylon, Colombo (*Nietner*), 1 ♂, 1 ♀ type, Pundaloya (*Green*), 1 ♀, Maskeliya (*Pole*), 1 ♀. *Exp.* 18-20 millim.

5124. Eublemma fasciata.

Capnodes fasciata, Hmpsn. Ill. Het. B. M. viii. p. 91, pl. 147. f. 10 (1891); id. Moths Ind. ii. p. 326.

Head and thorax brownish grey mixed with black; abdomen grey suffused with brown; pectus, legs, and ventral surface of abdomen grey tinged with brown, the tarsi black ringed with white. Fore wing grey suffused with brown and thickly irrorated with black, the male with some rufous on medial area, before subterminal line, and on cilia; subbasal line represented by a black spot on costa with a dark shade beyond it from costa to submedian fold; antemedial line with black spot at costa, incurved in cell, then minutely waved; a black point in middle of cell; a diffused black discoidal spot; medial line black slightly defined on outer side by whitish, excurved from below costa to beyond the cell, then oblique, dentate; postmedial line black defined on outer side by grey, oblique from costa to vein 6, incurved and slightly waved below vein 4, a dark shade beyond it with waved outer edge and some white points on costa; subterminal line black defined on inner side by whitish, dentate; a terminal series of black lunules; cilia with a fine whitish line near tips. Hind wing grey suffused with brown, the male with some rufous before subterminal line and on cilia, the inner area irrorated with black except in submedian fold; a sinuous postmedial black line with a black shade beyond it and waved subterminal line defined on inner side by whitish except on costal area and in submedian fold; a terminal series of black striæ; the underside white tinged with rufous and irrorated with brown, an indistinct sinuous line and curved postmedial line.

Hab. Madras, Nilgiris (*Hampson*), 1 ♂, 1 ♀ type. *Exp.* ♂ 30, ♀ 26 millim.

5125. Eublemma decora. (Plate CLI. fig. 18.)

Erastria decora, Wlk. Proc. Nat. Hist. Soc. Glasg. i. p. 350 (1869).

Head and thorax ochreous white mixed with fuscous; abdomen

ochreous suffused with brown; pectus, legs, and ventral surface of abdomen ochreous white. Fore wing black-brown mixed with grey-white, some ochreous suffused with flesh-red on inner basal area, the medial area ochreous suffused with flesh-red leaving a dark patch on middle of costa and a patch on inner area beyond the medial line; subbasal line black defined on outer side by reddish from costa to submedian fold; antemedial line black, sinuous, excurved below cell, a reddish point before it on costa; orbicular defined by brownish, round, the reniform faintly defined by red, some rufous in cell between them; an oblique sinuous line from lower angle of cell to inner margin, reddish on the pale area, black where it defines the dark area; postmedial line black slightly defined on outer side by white, oblique and sinuous from costa to vein 4, then incurved and slightly angled outwards at vein 1, some white points beyond it on costa; subterminal line black, minutely waved, defined on inner side by reddish lunulate marks from vein 7 to inner margin; a terminal series of small black lunules with small reddish spots before them except towards apex; cilia pale at apex. Hind wing fuscous brown, the base and costa paler; a blackish mark on inner margin at middle and double mark beyond the middle; a waved dark subterminal line from vein 4 to inner margin defined on inner side by flesh-red; a terminal series of slight black lunules with series of small flesh-coloured spots before them towards apex; the underside whitish suffused and irrorated with brown, a post-medial series of minute black points on the veins.

Hab. Congo (*Marsden*), 1 ♀ type; Br. E. Africa, Eb Urru (*Betton*), 1 ♀, Nairowa (*Betton*), 1 ♀; Transvaal, Johannesburg (*Cooke*), 1 ♀; Natal, Durban (*Clark*), 1 ♀. *Exp.* 22–26 millim.

5126. Eublemma rubripuncta. (Plate CLI. fig. 19.)

Metachrostis rubripuncta, Hmpsn. Ann. S. Afr. Mus. ii. p. 415 (1902).

Head and thorax black mixed with some white; pectus and legs ochreous white, the fore and mid legs blackish in front, the tarsi ringed with white; abdomen ochreous white dorsally suffused with blackish. Fore wing black mixed with some white; a pale subbasal striga from costa; antemedial line indistinctly double, black slightly defined on outer side by ochreous white, waved; orbicular represented by slight black lunules at sides, the reniform by a black lunule followed by an orange-red bar placed on an ochreous white patch beyond the cell extending to costa; an oblique waved black line from lower angle of cell to inner margin with a small orange-red spot before it in submedian fold; postmedial line black slightly defined on outer side by white, angled outwards at vein 6, excurved at median nervules, then incurved, some white points beyond it on costa; a waved black subterminal line defined on inner side by ochreous white except towards costa, excurved below vein 7 and at middle; a fine waved black terminal line defined on inner side by ochreous white lunules except towards apex; cilia

ochreous white with patches of fuscous at apex and above and below middle. Hind wing ochreous white, the inner margin black from near base to postmedial line, the terminal area tinged with fuscous from apex to vein 2; a medial black point on vein 2 and small spot on inner margin; double postmedial points on veins 5 to 2 and small spot on inner margin; a slight waved subterminal blackish line defined on inner side by ochreous white from discal fold to inner margin; a terminal series of small black lunules from apex to vein 2; cilia ochreous white mixed with some fuscous; the underside ochreous white irrorated with ochreous especially on costal area, a postmedial series of black points on the veins.

Hab. Germ. E. Africa, Stevenson Rd. (*Dewar*), 1 ♂; Natal, Durban (*Leigh*), 1 ♂ type. *Exp.* 22–24 millim.

5127. **Eublemma stygiodonta**, n. sp. (Plate CLI. fig. 20.)

♀. Head, thorax, and abdomen pale rufous suffused with black; pectus, legs, and ventral surface of abdomen paler, the fore tibiæ and the tarsi black ringed with whitish. Fore wing pale rufous suffused with black leaving some rufous on basal area, beyond the cell and on postmedial area from vein 4 to inner margin; subbasal line represented by black spots on costa and in cell; antemedial line black, waved, expanding into a spot at costa and with a black shade before it; a black point in middle of cell and double black discoidal bar; medial line with black bar from costa, then slight and excurved beyond the cell, then inwardly oblique and waved; postmedial line black, oblique from below costa to vein 6, slightly incurved at discal fold, bent inwards below vein 4 and sinuous to inner margin, some pale points beyond it on costa; subterminal line black defined on inner side by rufous, strongly dentate and produced to points on the veins; a terminal series of slight dark lunules. Hind wing pale fuscous brown with a reddish tinge; postmedial black points on the veins of inner half; a slight dentate black subterminal line on inner half defined on inner side by pale rufous; a terminal series of slight dark striæ; the underside greyish tinged with rufous, a postmedial series of minute dark striæ on the veins from costa to vein 3.

Hab. W. Africa (*Dudgeon*), 1 ♀ type. *Exp.* 28 millim.

5128. **Eublemma thermochroa**, n. sp. (Plate CLI. fig. 21.)

♀. Head and thorax pale ochreous tinged with brown; abdomen greyish tinged with brown leaving pale segmental lines; pectus, legs, and ventral surface of abdomen white, the fore tibiæ and tarsi fuscous ringed with white. Fore wing greyish ochreous suffused with reddish brown; subbasal line represented by a black striga from costa; antemedial line blackish, sinuous, with small black spot at costa; medial line black, sinuous, with a blackish shade beyond it; postmedial line black, oblique from costa to vein 6, angled inwards

at discal fold, excurved beyond lower angle of cell, then incurved, some black points beyond it on costa; subterminal line whitish defined on inner side by brown suffusion and with short black streaks before it between veins 7 and 4, minutely waved, excurved below vein 7 and at middle and angled inwards above and below submedian fold, some fuscous suffusion beyond it and an oblique dark streak from apex; a punctiform black terminal line; cilia with brown line at middle, the tips chequered with brown. Hind wing ochreous tinged with red-brown; a fine brown terminal line; cilia brownish at base, whitish at tips; the underside ochreous white sparsely irrorated with brown.

Hab. Cape Colony, Deelfontein (*Sloggett*), 1 ♀ type. *Exp.* 24 millim.

5129. Eublemma flavinia. (Plate CLI. fig. 22.)

Metachrostis flavinia, Hmpsn. Ann. S. Afr. Mus. ii. p. 411 (1902).

♂. Head orange-yellow, the antennæ brownish; thorax rufous mixed with greyish; pectus, legs, and abdomen yellow, fore tibiæ and tarsi brownish with pale rings. Fore wing greyish ochreous suffused and irrorated with red-brown; subbasal line ill-defined, from costa to submedian fold; antemedial line red-brown, diffused, waved, double at costa; a dark bar at middle of cell and indistinct dark discoidal lunule; a sinuous medial line with some dark suffusion beyond it from costa to below cell; postmedial line double filled in with greyish, excurved below costa and at middle, incurved at discal fold and below vein 4, some pale points beyond it on costa; subterminal line formed of whitish lunules defined on inner side by red-brown suffusion and on outer by a crenulate line; a terminal series of purple-brown points. Hind wing pale yellow, the veins of inner half slightly irrorated with red; a terminal series of slight reddish points; the underside with the costal area slightly irrorated with red.

♀. Abdomen suffused with red-brown; fore wing much darker, the ground-colour silvery-purple; hind wing suffused with red-brown on upper and under sides.

Hab. Transvaal, Johannesburg (*Cooke*), 1 ♂, 1 ♀. *Exp.* 24–28 millim. Type † in Coll. Druce.

5130. Eublemma lacernaria.

Geometra lacernaria, Hübn. Eur. Schmett., Geom. f. 422 (1818); Staud. Cat. Lep. pal. p. 226.

Anthophila glarea, Treit. Eur. Schmett., v. (3) p. 282 (1826); Geyer, Eur. Schmett., Noct. ff. 822-3; Dup. Lép. Fr., Suppl. iii. p. 561, pl. 47. f. 9; Frr. Beitr. pl. 135. f. 2; Herr.-Schäff. Eur. Schmett., Noct. ff. 259, 278–9.

Anthophila cretula, Frr. Neue Beitr. p. 124, pl. 360. ff. 3, 4 (1847); Rmbr. Cat. Lép. S. And. pl. 7. f. 5.

Glaphyra phlomidis, Guen. Noct. ii. p. 257 (1852).

Head and thorax pale olive-yellow irrorated with red-brown; palpi, lower part of frons, and antennæ brown, the frons with

black bar above; pectus, legs, and abdomen pale greyish irrorated with brown, the fore tibiæ and tarsi suffused with brown. Fore wing pale olive-yellow thickly irrorated with red-brown; subbasal line represented by two brown spots on costa, the antemedial line by brown spots on costa and in cell and a diffused sinuous line from cell to inner margin; ill-defined brown spots in middle of cell and on discocellulars; postmedial line double, diffused, minutely waved, oblique from costa to vein 6 and incurved below vein 4, some pale points beyond it on costa; terminal area suffused with reddish brown, the subterminal line whitish, excurved below vein 7 and at middle; cilia whitish mixed with reddish brown. Hind wing white faintly tinged with olive and irrorated with grey; diffused medial and postmedial olive-grey lines from below costa to inner margin; a diffused olive-grey subterminal line; terminal area suffused with greyish fuscous; a terminal series of fuscous spots connected by a fine line, with some white before it; cilia white; the underside whitish, the costal and terminal areas irrorated with brown, diffused medial and postmedial lines formed of brown irroration.

Ab. 1. *cretula*. Head, thorax, and fore wing yellowish white, the last with the markings olive-yellow; abdomen white; hind wing yellowish white with the markings pale olive-yellow.

Hab. S. France, Sand Coll.; Spain, Andalusia, Leech Coll., Murcia, Aragon, Grenada (*Walsingham, Irby*); Italy; Dalmatia; Greece, Leech Coll.; Armenia; Asia Minor, Pontus, Lydia, Magnesia (*Lederer*), Zeller and Frey Colls.; Syria, Leech Coll., Mardin; Palestine. *Exp.* 22–28 millim.

Larva. Kirby, Butt. & Moths Eur. p. 287; Hffm. Raup. p. 141.

On various species of *Phlomis* rolling up the leaves. 7.

5131. **Eublemma stygiochroa**, n. sp. (Plate CLI. fig. 23.)

♀. Head, thorax, and abdomen black-brown; pectus and ventral surface of abdomen whitish, the tarsi ringed with white. Fore wing glossy black-brown; an indistinct waved black antemedial line; a narrow slightly curved white medial band; postmedial line black, slightly defined on outer side by whitish and with white spot at costa, excurved below costa and at middle and angled inwards at discal and submedian folds; subterminal line absent; cilia white at apex. Hind wing glossy black; a narrow white medial band expanding into a spot below costa, then obliquely excurved; subterminal white spots at discal and submedian folds. Underside of fore wing with bluish white postmedial and subterminal bands, the former narrower towards costa to which it is slightly bent inwards, the latter curved; hind wing with oblique bluish white medial band from below costa to inner margin to which it is bent inwards, and subterminal band from vein 6 to inner margin.

Hab. Transvaal, White R. (*Cooke*), 1 ♀ type. *Exp.* 20 millim.

5132. Eublemma jucunda.

Noctua jucunda, Hübn. Eur. Schmett., Noct. ff. 486, 492 (1818); Dup. Lép. Fr. vii. pt. 1, p. 280, pl. 117. f. 6, & Suppl. iii. pl. 43. f. 5 *a*, *b*; Staud. Cat. Lep. pal. p. 226.

Enuychia sepulcralis, Treit. Schmett. Eur. vii. p. 199 (1829); Frr. Beitr. pl. 84. f. 4.

Head whitish, the antennæ brown; thorax and abdomen grey suffused with reddish brown, the last with whitish segmental lines; tarsi slightly ringed with whitish. Fore wing grey thickly pencilled with red-brown; two faint sinuous antemedial lines; a strong black medial line somewhat diffused on inner side and slightly excurved below costa; postmedial line indistinct, red-brown, excurved below costa and at middle, angled inwards at discal fold and incurved below vein 4, a slight whitish mark beyond it on costa, which is blackish beyond it; subterminal line with slight mark at costa, then defined on inner side by brown, excurved below vein 7 and at middle with patches of blackish suffusion before it, angled inwards at discal fold and incurved below vein 3; a punctiform black terminal line; cilia with a fine whitish line at base. Hind wing whitish suffused and irrorated with brown; two oblique blackish medial lines filled in with whitish; subterminal white spots at discal and submedian folds, with a diffused black band before them expanding into a large patch between them; a diffused black terminal line; cilia grey and fuscous; the underside white tinged with brown and irrorated with dark brown, the medial white band defined by black lines more prominent, a diffused subterminal white band incurved at discal and submedian folds and defined on inner side by a diffused sinuous black line.

Hab. S. France, Zeller, Frey, Sand, and Leech Colls.; N. Italy, Pegli, Frey Coll. *Exp.* 20–26 millim.

5133. Eublemma bolinia. (Plate CLI. fig. 24.)

Metachrostis bolinia, Hmpsn. Ann. S. Afr. Mus. ii. p. 411 (1902).

Head and thorax grey mixed with red-brown; abdomen grey suffused with fuscous leaving pale segmental bands; palpi, pectus, legs, and ventral surface of abdomen whitish irrorated with brown. Fore wing grey thickly irrorated with red-brown, the basal half and terminal area more or less strongly suffused with red-brown; a subbasal blackish point on costa; antemedial line brown defined on inner side by whitish, angled outwards below costa and excurved below the cell, a blackish bar before it across the cell; antemedial line red-brown defined on outer side by white and rather diffused on inner side, slightly excurved from below costa to median nervure; postmedial line red-brown slightly defined on outer side by white, excurved below costa, at middle and above inner margin and incurved at discal and submedian folds, some slight white points beyond it on costa; subterminal line white defined on inner side by fuscous brown suffusion, excurved below vein 7 and at middle and bent outwards to tornus; a dark terminal line. Hind wing grey

suffused and irrorated with brown, the terminal area suffused with fuscous black; a rather diffused oblique black medial line from below costa to inner margin; a rather diffused oblique slightly sinuous postmedial line; a small white spot beyond it on costa; subterminal white spots at discal and submedian folds with a large black patch between and before them emitting a black bar to inner margin before the submedian spot; a black terminal line; cilia grey mixed with brown; the underside white irrorated with brown, the medial and postmedial lines as above, an indistinct crenulate subterminal line.

Hab. Transvaal, White R. (*Cooke*), 1 ♂, 1 ♀, Johannesburg (*Cooke*), 1 ♂; Natal, Estcourt (*Hutchinson*), 1 ♂ type; Basutoland, Maseru (*Crawshay*), 1 ♂; Cape Colony, Annshaw (*Miss F. Barrett*), 2 ♂. *Exp.* 20–22 millim.

5134. **Eublemma hypozonata**, n. sp. (Plate CLI. fig. 25.)

♂. Head and thorax chocolate-brown mixed with grey; palpi and frons whitish; abdomen blackish with fine white segmental lines; pectus, legs, and ventral surface of abdomen whitish tinged with brown, the tarsi fuscous ringed with white. Fore wing chocolate-brown glossed with grey; an indistinct inwardly oblique whitish antemedial band narrowing to inner margin and with diffused blackish spots beyond it in cell and submedian fold; traces of a curved medial line with a very ill-defined whitish band beyond it before the very indistinct postmedial line; subterminal line hardly traceable, with slight dark suffusion before it at discal fold, excurved at middle; a dark terminal line; cilia with slight whitish line at base and white patch at apex. Hind wing glossy greyish suffused with fuscous brown, the terminal half darker; cilia with white patches at apex, middle, and submedian fold; the underside fuscous brown, some white streaks at base, an oblique white medial band with the blackish discoidal lunule on it, and subterminal series of slight white streaks.

Hab. Br. E. Africa, Kibauni (*Crawshay*), 1 ♂ type. *Exp.* 20 millim.

5135. **Eublemma leucanitis**, n. sp. (Plate CLI. fig. 26.)

♀. Head and thorax red-brown with a greyish tinge; abdomen greyish suffused with red-brown and irrorated with dark brown; tarsi fuscous with pale rings. Fore wing greyish ochreous tinged with rufous and irrorated with dark brown, the basal half of medial area and the terminal area suffused with fuscous brown; subbasal line represented by a blackish striga from costa; antemedial line blackish, angled outwards at subcostal and median nervures, then waved; medial line blackish, oblique from costa to lower angle of cell, then incurved and slightly angled outwards above inner margin; postmedial line dark brown, excurved below costa and at middle, incurved at discal fold and below vein 4, a clear whitish beyond it on costa followed by some white points; sub-

terminal line very indistinctly defined by fuscous suffusion on inner side, somewhat dentate, incurved below vein 3; a terminal series of blackish points; cilia white at apex. Hind wing grey-brown suffused with fuscous black; two oblique blackish medial lines filled in with whitish and bent inwards to inner margin; subterminal line whitish defined on inner side by black suffusion forming a large patch at middle, the whitish forming a diffused patch at discal fold; a black terminal line; cilia with some whitish at base and a patch at apex; the underside whitish tinged with ochreous and irrorated with dark brown, the two medial lines as above, a diffused dark subterminal band.

Hab. Cape Colony, Rosmead (*Juby*), 1 ♀ type. *Exp.* 28 millim.

5136. **Eublemma leucozona**, n. sp. (Plate CLI. fig. 27.)

♂. Head and thorax grey-brown; abdomen brownish grey dorsally suffused with fuscous; tarsi fuscous ringed with whitish. Fore wing grey-brown; subbasal line slight, dark, from costa to submedian fold; antemedial line dark, waved, angled outwards in submedian interspace; medial line brown, diffused on inner side, slightly angled outwards at median nervure, then somewhat sinuous; postmedial line dark, angled outwards below costa and inwards at discal fold, excurved at middle, then incurved; subterminal line defined on inner side by blackish suffusion, angled outwards at veins 7, 4, 3, then incurved, an oblique blackish shade beyond it from apex; a punctiform brown terminal line; cilia grey with some brown at middle. Hind wing blackish, the base and costal area brownish grey; a white medial band defined on each side by blackish lines, excurved below the cell; subterminal line defined by the terminal area being grey-white, incurved below costa and excurved at middle; a black terminal line; cilia grey mixed with fuscous; the underside grey suffused and irrorated with blackish, the medial band not filled in with white at costa, the terminal area somewhat darker than on upperside.

Hab. Br. E. Africa, Taveta (*Rogers*), 1 ♂, Neugia (*Crawshay*), 1 ♂, Kikuyu (*Crawshay*), 1 ♂ type, Gwelil (*Betton*), 1 ♂, Eb Urru (*Betton*), 1 ♂. *Exp.* 16–20 millim.

5137. **Eublemma syrtensis**, n. sp. (Plate CLI. fig. 28.)

♀. Head white, the antennæ brown; thorax white tinged with red-brown; abdomen whitish suffused with fuscous; tarsi brownish ringed with white. Fore wing ochreous white tinged with rufous and irrorated with dark brown; antemedial line faint, sinuous, with black points at costa, in cell and submedian fold; medial line brown, obliquely excurved from costa just beyond antemedial line, slightly incurved at end of cell and angled outwards at lower angle of cell, then oblique and slightly incurved at submedian fold; slightly defined on outer side by whitish; postmedial line dark brown defined on outer side by whitish, excurved below costa and at middle,

incurved at discal fold and below vein 4; subterminal line white defined on inner side by fuscous suffusion, excurved below costa and at middle and incurved at discal and submedian folds; a fine brown terminal line; cilia whitish tinged with brown at tips. Hind wing white faintly tinged with brown; two rather diffused black-brown medial lines bent outwards below the cell; a diffused subterminal white band incurved below costa and defined slightly by brown on inner side, then defined by black suffusion and bent outwards to tornus; a black terminal line forming a diffused patch at apex; cilia white slightly tinged with brown at tips; the underside white faintly tinged with brown, a slightly curved brown medial band from below costa to submedian fold.

Hind wing with the cell rather short and veins 3, 4 stalked.

Hab. Algeria, Hammam-es-Salahin (*Walsingham*), 1 ♀ type.
Exp. 22 millim.

5138. Eublemma suava.

Noctua suava, Hübn. Eur. Schmett., Noct. f. 578 (1818); Frr. Neue Beitr. iv. pl. 365 ff. 4, 5; Herr.-Schäff. Eur. Schmett., Noct. ff. 519, 520; Staud. Cat. Lep. pal. p. 226.

♂. Head, thorax, and abdomen ochreous suffused with rufous; tarsi fuscous ringed with whitish. Fore wing ochreous suffused with rufous; antemedial line with dark point on costa, then hardly traceable, sinuous; medial line red-brown defined on outer side by white and diffused on inner side, slightly curved and excurved at middle; postmedial line with brown striga from costa defined on outer side by white, then hardly traceable, sinuous, some white points beyond it on costa; subterminal line indistinct, whitish defined on inner side by brown suffusion, excurved below vein 7 and at middle, incurved at discal and submedian folds and bent

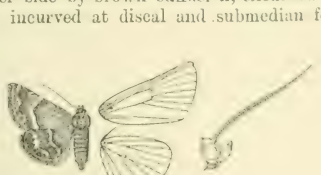

Fig. 39.—*Eublemma suava*, ♂. ½.

outwards to tornus; a fine red-brown terminal line; cilia greyish fuscous with a white line at base. Hind wing white tinged with rufous, the terminal area suffused with fuscous; two diffused oblique fuscous brown medial lines filled in with white and excurved below the cell; a white subterminal band expanding into a patch at discal fold, excurved at middle and with blackish patch on its inner side, then defined on inner side by a blackish band; a dark terminal line; cilia greyish fuscous; the underside white irrorated with

brown, the two medial lines prominent, the terminal area suffused with fuscous brown and with a diffused blackish subterminal band.

Ab. 1. Head, thorax, and fore wing greyer brown.

♀. Fore wing fuscous brown; hind wing black-brown, the white bands prominent.

Hind wing with the cell rather short and veins 3, 4 stalked.

Hab. S. France; Austria, Frey Coll.; Hungary, Zeller and Leech Colls., Croatia; Spain, Catalonia; Italy; Dalmatia, Zeller and Leech Colls.; Balkan States. *Exp.* 24–32 millim.

5139. Eublemma arcuinna.

Noctua arcuinna, Hübn. Beitr. Ges. Schmett. ii. 4. p. 93, pl. 2. O (1793); Staud. Cat. Lep. pal. p. 226.
Noctua inamœna, Hübn. Eur. Schmett., Noct. ff. 301–2 (1802); Frr. Neue Beitr. pl. 365. ff. 1–3; Dup. Lép. Fr., Suppl. iii. p. 504, pl. 43. f. 3.
Noctua argillacea, Tausch. Mém. Mosc. 1809, p. 325, pl. 20. f. 8.
Noctua ingrata, Herr.-Schäff. Eur. Schmett., Noct. pl. 55. ff. 278–9 (1845).
Noctua blandula, Rmbr. Cat. Lép. S. And. pl. 10. f. 2 (1858).
Noctua pergrata, Rmbr. Cat. Lép. S. And. pl. 10. f. 3 (1858).

♂. Head, thorax, and abdomen grey-white tinged with brown; pectus and ventral surface of abdomen whitish; tarsi fuscous with slight pale rings. Fore wing grey suffused with brown; antemedial line with blackish spot at costa, then very indistinct, sinuous; medial line fuscous brown defined on outer side by white and diffused on inner side, oblique from costa to median nervure; postmedial line oblique and blackish defined on outer side by whitish at costa, then very indistinct, sinuous, some whitish points beyond it on costa; subterminal line whitish defined on inner side by fuscous-brown suffusion, excurved at middle and incurved at discal fold and below vein 3; a punctiform dark terminal line; cilia greyish fuscous with a pale grey line at base. Hind wing whitish tinged with brown; a diffused curved medial brown line from cell to vein 1; postmedial line indistinct, almost obsolete on costal half, oblique from costa to vein 4; terminal area grey-brown with a blackish-brown patch before it between veins 4, 3; a fine dark terminal line; cilia grey-brown with a whitish line at base; the underside white tinged and irrorated with brown except on inner area and the medial band which is defined by distinct diffused brown lines from costa to submedian fold.

♀. Fore and hind wings suffused with fuscous.

Ab. 1. *argillacea*. Fore wing more ochreous brown; hind wing whiter, the markings of both wings more distinct.

Ab. 2. *ingrata*. Fore wing pale brownish ochreous; hind wing ochreous white tinged with brown, the markings of both wings indistinct.

Ab. 3. *blandula*. Fore and hind wings ochreous white tinged with brown, the medial and subterminal lines of fore wing and the markings of hind wing distinct.

Hind wing with the cell rather short and veins 3, 4 stalked.

Hab. S.E. Germany; Austria, Zeller & Frey Colls.; Hungary, Frey & Leech Colls.; Spain, Andalusia, Leech Coll., Albaracin (*Chapman*), Murcia, Aragon; Italy; Algeria; Dalmatia; Greece; Crete; S. Russia, Sarepta (*Christoph*); Armenia; Asia Minor, Pontus, Bithynia; Persia, Schahkuh (*Christoph*), 1 ♂; W. Turkestan, Ferghana, Issyk Kul, Ala Tau; W. Siberia, Altai; E. Turkestan, Ili; E. Siberia, Amurland, 2 ♀; Corea, Gensan (*Ito*), 1 ♂; N. China. *Exp.* 32–36 millim.

Larva. Kirby, Butt. & Moths Eur. p. 286; Hffm. Raup. p. 141; Gillmer, Soc. Ent. xxii. p. 97 (1907).

Pale ochreous yellow. On the shoots of *Onosma echioides*. 7.

5140. Eublemma cuelecana. (Plate CLI. fig. 29.)

Eublemma kuelekana, Staud. Cat. Lep. Eur. ed. ii. p. 131 (1871); id. Cat. Lep. pal. p. 226.

♂. Head, thorax, and abdomen ochreous tinged with rufous. Fore wing ochreous tinged with rufous; traces of a sinuous rufous antemedial line and of rufous points in end of cell and on discocellulars; medial line indistinct, rufous, oblique from costa to lower angle of cell; postmedial line very indistinct, rufous, evenly curved; subterminal line indistinct, rufous, excurved below vein 7 and at middle and bent outwards to tornus; a fine rufous terminal line; cilia brownish with a white line at base. Hind wing ochreous suffused with rufous; traces of oblique rufous medial and postmedial lines and of a pale subterminal line defined on inner side by rufous and excurved at middle; the termen suffused with rufous; cilia yellowish white; the underside yellowish white suffused with bright rufous.

Hind wing with the cell half the length of wing and veins 3, 4 from angle.

Hab. Asia Minor, Kuelek (*Lederer*), 2 ♂, Pontus, Taurus. *Exp.* 38 millim.

5141. Eublemma chlorochroa, n. sp. (Plate CLI. fig. 30.)

♂. Head and thorax ochreous white mixed with some olive-green; abdomen white tinged with reddish ochreous leaving slight white segmental lines. Fore wing ochreous white faintly irrorated with brownish, the costa irrorated with fuscous with some white points on postmedial area, the inner area suffused with pale olive-green and slightly irrorated with fuscous except at base; faint traces of a curved whitish antemedial line; a minute black point in cell beyond middle; a faint whitish medial line oblique from costa to lower angle of cell, then inwardly oblique; a pale yellow-green cornucopia-shaped patch with its apex in end of cell and extending thence to costa just before apex and to termen at vein 2;

traces of a dark postmedial line excurved from costa to vein 4, then incurved; a subterminal series of black striæ on the green area and a faint whitish striga above tornus; cilia ochreous white. Hind wing pure white with slight dark terminal line.

♀. Hind wing suffused with brown.

Hab. Br. E. Africa, Kikuyu (*Crawshay*), 2 ♂, Machakos (*Crawshay*), 1 ♀, Eb Urru (*Betton*), 1 ♂, 1 ♀ type, Nairowa (*Betton*), 1 ♂, E. Quaso (*Betton*), 1 ♀. *Exp.* 28–34 millim.

5142. Eublemma admota.

Acontia admota, Feld. Reis. Nov. pl. 108. f. 31 (1874).

♂. Head and thorax white slightly mixed with olive-green; antennæ brownish; abdomen white tinged with brownish ochreous. Fore wing white; the costa suffused with olive-green with a reddish tinge below it, the inner area suffused with olive-green except at base, the cell white; a faint whitish antemedial line, incurved in cell and excurved below it; faint traces of a pale medial line oblique from costa to lower angle of cell, then incurved; a black point in cell beyond middle; a cornucopia-shaped yellow-green patch defined by white, its apex in end of cell and extending thence to costa just before apex and to termen at vein 2; a faint medial whitish striga from costa and sinuous line from cell to inner margin; postmedial line faint, whitish, olive-green on the green area, oblique from costa to vein 6, incurved below vein 4 and slightly excurved above inner margin; a subterminal series of black striæ on the green area, slightly excurved at middle, and a faint oblique white striga above tornus; cilia white faintly chequered with olive at base. Hind wing pure white with slight dark terminal line.

♀. Hind wing suffused with brown.

Hab. Abyssinia, Atbara R. (*Gerrard*), 1 ♀; Sokotra, Hadibu Plain (*O. Grant*), 1 ♀; Br. E. Africa, Taveta (*Rogers*), 1 ♀, Samburu (*Betton*), 1 ♀; Mashonaland, Salisbury (*Marshall*), 1 ♂; Br. Bechuanaland, N'Gami (*Lugard*), 1 ♀; Transvaal, Potchefstroom (*Roberts*), 1 ♂, Johannesburg (*Cooke, Marshall*), 1 ♂, 1 ♀; Natal, Estcourt (*Hutchinson*), 1 ♂, 1 ♀, Maritzburg (*Burnup*), 1 ♀. *Exp.* 24–32 millim.

5143. Eublemma olivacea.

Acontia olivacea, Wlk. xii. p. 795 (1857); Hmpsn. Ill. Het. B. M. ix. p. 100, pl. 162. f. 21; id. Moths Ind. ii. p. 342.
Anthophila nebulifera, Wlk. xxxiii. 802 (1865).

Head and thorax white suffused with ochreous; abdomen white. Fore wing ochreous white slightly irrorated with olive-green, the costal area with brownish; a faint slightly excurved whitish antemedial line; a faint pale medial line, oblique from costa to lower angle of cell, then incurved; a slight oblique blackish discoidal

striga on an olive-green spot with a patch from its lower extremity curved round and up to apex and diffused to termen where it extends to vein 2; a reddish tinge beyond upper angle of cell; a faint whitish postmedial line excurved from costa to vein 5 then obliquely incurved; a subterminal blackish spot at vein 6; the apex rufous; cilia ochreous white. Hind wing pure white or with the terminal area suffused with brown.

Hab. Punjab (*Hearsey*), 1 ♀ type; Sikhim, 2 ♂; Madras, Coimbatore (*Wathouse*), 1 ♀ type *nebulifera*; Ceylon (*Templeton*), 2 ♂, 1 ♀. *Exp.* 20–28 millim.

5144. Eublemma reducta.

Eublemma reducta, Butl. P. Z. S. 1894, p. 588, pl. 37. f. 7.

♂. Head and thorax creamy white; palpi and antennæ tinged with brown; abdomen white dorsally tinged with ochreous. Fore wing creamy white, the costal area and the terminal half of inner area slightly irrorated with brown; traces of a sinuous antemedial line excurved below the cell; faint traces of a pale medial line oblique from costa to lower angle of cell, then inwardly oblique; a small black discoidal lunule with a diffused olive-brown band curving round from its lower extremity up to apex; some faint reddish suffusion beyond upper angle of cell; faint traces of a postmedial line, strongly excurved from below costa to vein 5, then oblique; three subterminal black points towards costa. Hind wing white, the apex faintly tinged with brown; some slight black points on termen from apex to vein 2; the underside white.

♀. Hind wing suffused with brown.

Hab. Br. E. Africa, Sabaki Valley (*Gregory*), 1 ♂, 1 ♀ type. *Exp.* 18 millim.

5145. Eublemma bipartita. (Plate CLI. fig. 31.)

Eublemma bipartita, Hmpsn. Ann. S. Afr. Mus. ii. p. 419 (1902).

Head, thorax, and abdomen white; palpi and antennæ brownish; tibiæ and tarsi brownish, the latter ringed with white. Fore wing with the basal half pure white, the terminal half bluish grey, suffused and thickly striated with fuscous black; the costal edge brownish on basal area; a subbasal brownish line from costa to submedian fold; an antemedial brownish point below costa, minute black point in cell, and slightly sinuous brownish line from cell to inner margin; medial line defining the white area, oblique from costa to lower angle of cell where it is acutely angled outwards, then incurved and slightly sinuous; a small black discoidal spot; postmedial line blackish defined on outer side by white, excurved below costa and at middle, angled inwards in discal fold and strongly incurved below vein 4, a white point beyond it on costa; subterminal line white with a series of small black spots and streaks on its outer side, waved, incurved at discal fold and below

vein 3, the interspaces beyond it with white streaks; a fine black terminal line; cilia pure white. Hind wing white faintly tinged with brown especially on terminal area; traces of sinuous medial and postmedial lines; a black terminal line; cilia pure white; the underside with slight blackish irroration from middle of costa to discocellulars, a terminal series of black points from apex to vein 2.

Hab. Transvaal (*Rose, Cholmley*), 2 ♂, 3 ♀ type, Johannesburg (*Cooke*), 4 ♀. *Exp.* 22 millim.

5146. Eublemma leucomelana. (Plate CLI. fig. 32.)

Eublemma leucomelana, Hmpsn. Ann. S. Afr. Mus. ii. p. 420 (1902).

Head and thorax creamy white; antennæ brown; fore tibiæ and the tarsi brownish ringed with white; abdomen white dorsally tinged with ochreous. Fore wing with the basal half creamy white, the terminal half reddish brown, the outer half of medial area tinged with purplish grey; a faint diffused subbasal line from costa to submedian fold; a slight antemedial dark spot on costa and traces of a line from cell to inner margin; a black point in middle of cell; medial line purplish grey defined on inner side by dark brown, dentate outwards on median nervure; a slight black discoidal striga; postmedial line blackish defined on outer side by white towards costa, excurved below costa and at middle, angled inwards at discal fold and incurved below vein 4, a white point beyond it on costa; subterminal line indistinct, pale, defined on inner side by some dark red-brown marks and with irregular black spots on outer, excurved below vein 7 and at middle and angled inwards at discal fold; cilia white tinged with rufous and with a rufous line at middle. Hind wing creamy white, the terminal area tinged with brown, a fine dark terminal line; cilia creamy white; the underside with the costal area slightly irrorated with brown on terminal half, slight subterminal brownish marks near apex and at discal and submedian folds and some minute black points on termen.

Hab. Cape Colony, 1 ♂, Deelfontein (*Sloggett*), 2 ♀, Annshaw (*Miss F. Barrett*), 1 ♂, 1 ♀ type. *Exp.* 16–18 millim.

5147. Eublemma ostrina.

Noctua ostrina, Hübn. Eur. Schmett., Noct. ff. 399, 648 (1808); Dup. Lép. Fr., Suppl. iii. p. 514, pl. 44. f. 1; Herr.-Schäff. Eur. Schmett., Noct. f. 281; Rmbr. Cat. Lép. S. And. pl. 13. ff. 3–5.
Micra carthami, Herr.-Schäff. Eur. Schmett. ii. p. 438, Noct. f. 558 (1845).
Anthophila porphyrina, Frr. Neue Beitr. v. p. 93, pl. 437. ff. 3, 4 (1848); Staud. Cat. Lep. pal. p. 288.
Micra numida, Lucas, Explor. Alg. p. 388, pl. iii. f. 8 (1848).
Micra æstivalis, Guen. Noct. ii. p. 247 (1852).
Thalpochares purpurata, Led. Noct. Eur. p. 43 (1857).

Head, thorax, and abdomen pale olive-ochreous, the head and tegulæ tinged with rufous, the abdomen with slight white segmental

lines; pectus and ventral surface of abdomen whiter. Fore wing pale olive-ochreous, the postmedial area suffused with red-brown and tinged with pink with a white patch on costal area; a slight dark streak below base of cell; short rufous streaks on medial area before the indistinct diffused rufous medial line which is angled outwards at lower angle of cell, then oblique; a black discoidal point with a minute wedge-shaped white mark before it; a diffused oblique postmedial brown bar from costa; the postmedial area with rufous streaks in the interspaces becoming black at costa and towards the subterminal line, which is pure white, excurved below vein 7 and at middle and slightly angled inwards at discal fold and below vein 3, some rufous suffusion beyond it and a black spot at apex; a fine brown terminal line with a yellowish-white line before it; cilia yellowish white with a rufous line near tips. Hind wing yellowish white tinged with red-brown; cilia white; the underside white, the costal area slightly irrorated with brown, a blackish discoidal point and terminal series of slight points.

Ab. 1. *æstivalis*. Much paler, yellowish white; fore wing without any pink, the markings indistinct.

Ab. 2. *carthami*. Fore wing almost uniform yellowish white.

Ab. 3. *porphyrina*. Fore wing whiter with dark medial and postmedial bands.

Hab. Britain, England; France, Leech Coll., Cannes (*Walsingham*); S. W. Germany; Austria, Carniola; Switzerland, Leech Coll.; Spain, Leech Coll.; Italy, Rome, Zeller Coll., Iuri, Zeller Coll.; Sicily, Zeller Coll.; Algeria, (*Mrs. Nicholl*), Philippeville, (*Walsingham*), Hammam-es-Salahin (*Walsingham*); Morocco, Tangier, Leech Coll.; Canaries, Teneriffe (*Walsingham*), Madeira; Greece; Rumelia; S. Russia, Sarepta, Leech Coll.; Armenia; Asia Minor (*Lederer*); Rhodes, Zeller Coll.; Cyprus (*Glaszner*); Syria, Lebanon (*Pratt*), Mardin; Egypt, Maryut (*Graves*), 1 ♀; Persian Gulf, Fao (*Cuming*), 1 ♂; W. Turkestan, Turcomania, Ferghana, Sarawschan, Issyk Kul, Tarbagakai Mts; W. Siberia, Altai; Mongolia, Uliassutai; Bombay, Deesa (*Nurse*), 2 ♂, 4 ♀. *Exp.* 18–28 millim.

Larva. Kirby, Butt. & Moths Eur. p. 288; Hffm. Raup. p. 142.

Greenish with pale dorsal and subdorsal lines; warts brownish, each with a single long hair; head dark brown; two anterior pairs of prolegs absent. Food-plants: *Carduus* and *Helichrysum angustifolium*; three broods.

5148. Eublemma staudingeri. (Plate CLII. fig. 2.)

Thalpochares staudingeri, Wllgrn. Œfv. Vet.-Akad. Förh. 1875, p. 112.
Eublemma pretoriæ, Dist. A. M. N. H. (7) i. p. 225 (1898).

♂. Head, thorax, and abdomen ochreous suffused with reddish brown. Fore wing ochreous suffused with reddish brown; a slight black streak in submedian fold; a slight subdorsal black streak below vein 1; a slight black streak in the cell from before middle to the small discoidal black spot placed on the somewhat diffused medial

black line which is oblique from costa to lower angle of cell, then inwardly oblique; a diffused oblique postmedial blackish bar from costa; subterminal line whitish with wedge-shaped black streaks before it forming a diffused patch on costal area running out obliquely to apex with some whitish points on it at costa, the streak in discal fold extending almost to discoidal spot, the line excurved below vein 7 and at middle; a fine dark terminal line; cilia yellowish tinged with rufous at apex. Hind wing ochreous suffused with reddish brown, the terminal area darker; an indistinct oblique dark medial line; a fine dark terminal line; the underside ochreous tinged with brown and slightly irrorated with black, a black discoidal spot on a diffused curved brown medial line, a punctiform blackish terminal line.

♀. Much darker, the thorax, abdomen and wings suffused with dark brown.

Hab. N. Nigeria, Borgu, Yelwa L. (*Migeod*), 3 ♂; Mashonaland, Umtali (*Marshall*), 1 ♂; Transvaal, Piet Retief (*Crawshay*), 3 ♂; Natal, Estcourt (*Hutchinson*), 1 ♂, 2 ♀. *Exp.* 20–26 millim.

5149. Eublemma nigrivitta. (Plate CLII. fig. 3.)

Eublemma nigrivitta, Hmpsn. Ann. S. Afr. Mus. ii. p. 421 (1902).

Head and thorax pale ochreous mixed with dark brown; the head browner; abdomen pale greyish dorsally suffused with fuscous brown; pectus and legs irrorated with brown, the tarsi fuscous ringed with whitish. Fore wing pale ochreous tinged with rufous, the base of costa and basal half of medial area greyish irrorated with dark brown; antemedial line blackish, sinuous; a blackish point in middle of cell and discoidal bar; medial line black, oblique from costa to just beyond the cell, slightly incurved at discal fold, excurved beyond lower angle of cell, then incurved and again excurved above inner margin; postmedial line oblique from costa to vein 6, then minutely dentate and produced to whitish points on the veins, angled inwards at submedian fold, a greyish and fuscous brown shade beyond it and some pale points on costa; subterminal line represented by a fine minutely dentate brown line on its outer edge, a small black spot beyond it below costa and a short streak in discal fold; a fine blackish terminal line; cilia ochreous tinged with rufous and mixed with fuscous. Hind wing ochreous tinged with brown on inner half, some black irroration along vein 1; medial and postmedial blackish lines from below costa to inner margin and traces of two subterminal lines; a fine black terminal line; cilia ochreous mixed with some fuscous; the underside ochreous tinged with rufous and irrorated with brown except on inner area, traces of a minutely waved medial line and of a more distinct postmedial line with some black points on it.

Ab. 1. Fore wing with the whole basal half suffused with fuscous.

Hab. Cape Colony, Annshaw (*Miss F. Barrett*), 6 ♂, 5 ♀ type. *Exp.* 24–26 millim.

5150. **Eublemma atriciliata**, n. sp. (Plate CLII. fig. 4.)

♂. Head and fore legs rufous; tegulæ pure white with a rufous line at base; thorax and abdomen brownish white, the latter dorsally irrorated with brown. Fore wing creamy white slightly irrorated with rufous; a black subbasal point on costa; antemedial line red-brown with black points at costa and in cell, incurved in cell, then oblique; a black discoidal point; medial line red-brown with a black point at costa, oblique from costa to just beyond upper angle of cell, angled inwards at discal fold, incurved below vein 4 and excurved above inner margin; postmedial line red-brown, oblique at costa; then indistinct and minutely waved, slightly angled inwards at discal fold and oblique below vein 4, a red brown spot beyond it on costa; subterminal line indistinct, white, minutely waved, with a series of black points on its outer edge; a fine rufous terminal line; cilia thickly irrorated with black except at base. Hind wing creamy white slightly irrorated with rufous; a medial line formed of rufous and black scales from below costa to inner margin; traces of a minutely waved rufous postmedial line and of a minutely dentate whitish subterminal line with a series of black points on its outer edge; a fine rufous terminal line; cilia rufous at base, blackish at tips; the underside whitish tinged with rufous, traced of a diffused medial line and minutely waved curved postmedial line.

Hab. Singapore (*Ridley*), 1 ♂ type. *Exp.* 20 millim.

5151. **Eublemma albicosta**, n. sp. (Plate CLII. fig. 5.)

♂. Head and tegulæ white tinged with brown; thorax pale red, white in front; abdomen ochreous suffused with red; pectus, legs, and ventral surface of abdomen white, the fore legs brownish. Fore wing yellowish almost wholly suffused and irrorated with fiery red, the costa pure white; an indistinct curved red antemedial line; medial line red, oblique from costa to beyond upper angle of cell, then inwardly oblique; postmedial line red, excurved below costa and at middle and incurved at discal and submedian folds, some black points beyond it on costa; a subterminal series of black points with slight white points on their inner side, excurved at middle; a deep red terminal line. Hind wing yellowish almost wholly suffused with fiery red; traces of an oblique red medial line and sinuous postmedial line; a subterminal series of black points; a deep red terminal line; cilia crimson at tips; the underside yellowish white, the costal and terminal areas sparsely irrorated with brown, a terminal series of black points.

Hab. Sierra Leone (*Clements*), 1 ♂; Gold Coast, Kumasi (*Whiteside*), 2 ♂ type. *Exp.* 20 millim.

5152. **Eublemma proleuca**, n. sp. (Plate CLII. fig. 6.)

♀. Head and thorax whitish tinged with rufous; abdomen blood-red at base, then dark brown with pale segmental lines, the ventral surface whitish irrorated with brown. Fore wing blood-red finely striated with brown, the costal area and termen ochreous white, the costal edge brown; antemedial line represented by a dark point on costa and diffused curved red line from cell to inner margin; a rather oblique white discoidal bar; medial line represented by a dark point on costa and diffused red line from below costa, excurved beyond the cell, then incurved and sinuous; postmedial line rather diffused, red, excurved from costa to vein 4, then incurved and ending at tornus; some slight brown marks just before termen from apex to vein 5; a fine brown terminal line and series of dark points on the cilia. Hind wing blood-red finely striated with brown and with traces of diffused oblique red medial and postmedial lines; the underside ochreous white irrorated with fuscous, the terminal area suffused with brown.

Hab. S. Nigeria, Olokemeji (*Dudgeon*), 1 ♀ type. *Exp.* 12 millim.

5153. **Eublemma albifascia**, n. sp. (Plate CLII. fig. 7.)

♂. Head and tegulæ ochreous suffused with rufous, the palpi and antennæ deep red-brown; thorax and abdomen deep purplish rufous, the prothorax with white band; pectus, legs, and ventral surface of abdomen ochreous white, the tibiæ and tarsi tinged with brown. Fore wing deep purplish rufous, the costa narrowly white to near apex, the costal edge blackish towards base; a faint oblique dark antemedial line, incurved at vein 1; a rather diffused blackish discoidal spot; a faint dark medial line, excurved from costa to beyond the cell, then sinuous; postmedial line faint, dark, excurved from costa to vein 4, then incurved and again excurved above inner margin; traces of a subterminal series of slight blackish spots. Hind wing deep purplish rufous with faint traces of an oblique medial line, waved postmedial line and subterminal series of blackish points; the underside whitish tinged with brown.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♂ type. *Exp.* 32 millim.

5154. **Eublemma flavicosta**, n. sp. (Plate CLII. fig. 8.)

♀. Head and tegulæ yellow suffused with red; thorax and abdomen chocolate-brown tinged with grey; pectus and legs yellowish suffused with rufous. Fore wing chocolate-brown suffused with purplish grey, the costal area yellow; an indistinct brown antemedial line from the costal area to inner margin, defined on inner side by grey and slightly excurved below the cell; sinuous brown medial and postmedial lines from the costal area to inner

margin; subterminal line brown, slightly angled outwards at vein 7 and excurved at middle; a waved brown terminal line; cilia with a slight whitish line at base. Hind wing chocolate-brown suffused with purplish grey and irrorated with dark brown; indistinct obliquely curved dark medial and postmedial lines; an indistinct dark subterminal line defined on inner side by grey, slightly angled inwards in discal fold; a fine waved brown terminal line; cilia with a slight whitish line at base; the underside bluish white tinged with rufous and irrorated with brown.

Hab. Transvaal, White R. (*Cooke*), 1 ♀ type. *Exp.* 26 millim.

5155. **Eublemma atrifusa**, n. sp. (Plate CLII. fig. 9.)

♀. Head and thorax orange-yellow; palpi at sides, antennæ and a bar between their base and the tegulæ red-brown; pectus and legs irrorated with brown; abdomen dorsally fuscous with some rufous at base and pale segmental lines, ventrally yellow irrorated with a few brown scales. Fore wing yellow suffused with red except on costal area; the costal edge black towards base; a subbasal black spot above inner margin; antemedial line diffused, black, interrupted below costa, then waved; a small black discoidal spot; medial line diffused, black, strongly excurved beyond the cell; postmedial line black, diffused and somewhat maculate, oblique towards costa and incurved at discal fold and between vein 3 and submedian fold; a small subterminal black spot below apex and rather diffused dark dentate line from vein 6 to inner margin with black spots on it above and below veins 5 and 1; a fine dark terminal line. Hind wing yellow tinged with red and largely suffused with blackish except at termen; an oblique black medial line from cell to inner margin; two diffused irregularly waved black postmedial lines and a maculate subterminal line from below apex to vein 2 towards which it is reduced to points; a fine blackish terminal line; the underside yellowish irrorated with black, the terminal area suffused with fuscous, traces of two diffused blackish postmedial lines and a subterminal line.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♀ type. *Exp.* 20 millim.

5156. **Eublemma ochrochroa**, n. sp. (Plate CLII. fig. 10.)

♂. Head and thorax ochreous tinged with brown; palpi and legs red-brown; abdomen ochreous. Fore wing brownish ochreous tinged with rufous especially towards apex and irrorated with black; an indistinct oblique sinuous blackish antemedial line from [illegible] to inner margin; a slight black discoidal lunule with a diffused fuscous shade beyond it; an ill-defined oblique medial black line from vein 6 well beyond the cell to inner margin; a blackish postmedial line, excurved from costa to vein 4, then oblique; a subterminal series of small blackish spots. Hind wing ochreous white slightly irrorated

with brown; traces of curved postmedial and subterminal lines. Underside of fore wing with the disk irrorated with black; hind wing ochreous yellow, some brown irroration on apical area.

Hab. Sierra Leone (*Clements*), 2 ♂ type. *Exp.* 18 millim.

5157. **Eublemma minuta**, n. sp. (Plate CLII. fig. 11.)

♂. Head, thorax, and abdomen ochreous; tegulæ, palpi, and fore legs tinged with red. Fore wing ochreous irrorated with brown, the costa tinged with rufous; an obliquely curved blackish antemedial line; a diffused blackish discoidal spot; medial line blackish, excurved from below costa to beyond the cell, then oblique; postmedial line blackish, strongly excurved from below costa to vein 4, then oblique to inner margin at the medial line: a blackish terminal line. Hind wing white tinged with ochreous.

Hab. Br. E. Africa, Athi Valley (*Crawshay*), 1 ♂ type. *Exp.* 10 millim.

5158. **Eublemma apicata.** (Plate CLII. figs. 12 ♂, 13 ♀.)

Eublemma apicata, Dist. A. M. N. H. (7) i. p. 225 (1898).
Erastria acrochiona, Mab. Ann. Soc. Ent. Fr. 1899, p. 729.

♂. Head, thorax, and abdomen pale brownish ochreous; pectus and ventral surface of abdomen whitish. Fore wing pale brownish ochreous tinged with rufous and sparsely irrorated with black; a blackish subbasal spot on costa; traces of a sinuous antemedial line; diffused blackish spots in middle of cell and on discocellulars; traces of a sinuous medial line excurved beyond the cell; postmedial line very indistinct, oblique from costa to vein 6, then inwardly oblique and minutely waved; subterminal line formed by minute whitish points with blackish spots before them below veins 7, 6 and in submedian fold; a terminal series of black points; cilia whitish mixed with fuscous. Hind wing ochreous white irrorated with fuscous brown, the terminal area suffused with fuscous; cilia white with a series of black points; the underside white tinged with brown and irrorated with black, blackish points in middle of cell and on discocellulars and a terminal series.

♀. Head and thorax bright rufous to fuscous brown; abdomen greyish fuscous; fore wing bright rufous to fuscous brown; the subterminal line defined by fuscous suffusion on inner side towards costa and inner margin, with a pure white patch beyond it at apex with point below it and small spot in submedian fold; hind wing with the basal half grey suffused with fuscous, the terminal half black; cilia grey-white with some fuscous at base.

Hab. E. Africa, type † ♀ *acrochiona* in Coll. Mabille: Br. C. Africa, Likoma (*de Jersey*), 1 ♂, 1 ♀; Mashonaland, Salisbury (*Marshall*), 1 ♀; Transvaal, White R. (*Cooke*), 2 ♂, Pretoria (*Janse*), 1 ♂, 2 ♀; Natal, Weenen, 1 ♀, Tugela R., Bonds Drift (*Reynolds*), 1 ♀, Durban (*Leigh*), 1 ♂, 1 ♀; Cape Colony, Transkei (*Miss F. Barrett*), 1 ♂, Annshaw (*Miss F. Barrett*), 1 ♀. *Exp.* 20–26 millim. Type † in Coll. Distant.

5159. **Eublemma nyctichroa**, n. sp. (Plate CLII. fig. 14.)

♀. Head, thorax, and abdomen black-brown mixed with some grey; pectus, legs, and ventral surface of abdomen pale brown irrorated with fuscous, the tarsi black with pale rings. Fore wing glossy chocolate-brown suffused with fuscous black and slightly irrorated with grey; antemedial line very indistinct, double, a blackish medial shade; postmedial line very indistinct, double filled in with greyish, oblique from costa to vein 6 and incurved below vein 4; subterminal line hardly traceable, excurved to near termen at middle; a fine dark terminal line defined on inner side by a very slight whitish line. Hind wing very dark glossy chocolate-brown, the cilia grey brown with a slight pale line at base; the underside slightly irrorated with grey and with traces of dark discoidal spot and curved postmedial line.

Hab. Abyssinia, Atbara R. (*Gerrard*), 1 ♀; Br. E. Africa, Eb Urru (*Betton*), 1 ♀ type. *Exp.* 18 millim.

*5160. **Eublemma candicans**.

Noctua candicans, Rmbr. Cat. Lép. S. And. pl. 10. f. 5 (1858), ♂; Staud. Cat. Lep. pal. p. 227.
Noctua extranea, Rmbr. Cat. Lép. S. And. pl. 13. f. 2 (1858), ♂.
Noctua extraria, Rmbr. Cat. Lép. S. And. pl. 15. f. 1 (1858), ♀.

♀. Head, thorax, and abdomen white suffused with ochreous brown. Fore wing white suffused with brown leaving the base, costal area to postmedial line, and cell white; a faint diffused waved brown antemedial line; a few black scales in middle of cell and a black discoidal striga; medial line brown, rather diffused, oblique from costa to beyond upper angle of cell and inwardly oblique below vein 4; postmedial line brown, slightly defined on outer side by white, oblique from costa to vein 7 and inwardly oblique below vein 4; subterminal line white, slightly angled outwards at vein 7 and excurved at middle, defined on outer side by small blackish spots; a fine rufous terminal line; cilia brownish with white line at base. Hind wing white suffused with reddish brown, the basal area whiter; cilia brownish with a white line at base. Underside of fore wing brown, the inner area white, the veins of terminal area slightly streaked with white; hind wing creamy white irrorated with a few black-brown scales, the terminal area tinged with brown.

♂. Ground-colour nearly uniform fuscous grey.

Ab. 1. ♂. Ground-colour whitish, fore wing with some brownish suffusion before subterminal line; hind wing with diffused brown subterminal line.

Hab. Spain, Andalusia, Malaga in Coll. Pungeler; Algeria. *Exp.* 34 millim.

5161. **Eublemma carneotincta**, n. sp. (Plate CLII. fig. 15.)

♂. Head and tegulæ rufous mixed with some whitish; thorax and abdomen whitish suffused with purplish pink and slightly irrorated with fuscous; tarsi fuscous ringed with white. Fore wing whitish suffused with purplish pink and slightly irrorated with fuscous; traces of a punctiform black antemedial line excurved below costa, then oblique; a diffused black discoidal spot with a smaller spot before it; medial line indistinct, blackish, oblique from costa to beyond upper angle of cell and inwardly oblique below vein 4; a postmedial series of black points, oblique from costa to vein 6, some black points beyond it on costa; a subterminal series of small black spots and a terminal series of points. Hind wing whitish suffused with purplish pink except on costal area; traces of a postmedial series of black points, a subterminal series of small spots and a terminal series of points; the underside white tinged with brown and irrorated with a few black scales.

Hab. Sierra Leone (*Clements*), 2 ♂ type. *Exp.* 18–20 millim.

5162. **Eublemma vinotincta.** (Plate CLII. fig. 16.)

Eublemma vinotincta, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 206 (1902).

Head and tegulæ pale rufous mixed with some white; thorax and abdomen white mixed with rufous. Fore wing white suffused and irrorated with purplish red especially towards tornus, the costal edge pale red-brown; an indistinct red-brown antemedial line defined on inner side by whitish, angled outwards below costa, then oblique and slightly waved; a slight discoidal lunule sometimes filled in with black; medial line oblique from costa to reniform and incurved below the cell; postmedial line slightly defined by white on outer side, oblique from costa to vein 6 and incurved below vein 4; traces of a pale subterminal line with a series of black points on its outer edge, obsolescent on inner half, excurved at middle. Hind wing whitish suffused and irrorated with purplish red except on basal and costal areas; an indistinct double oblique medial line filled in with whitish from discal fold to inner margin; traces of a minutely waved postmedial line defined on outer side by whitish except on costal area and of a pale minutely waved subterminal line with some black points on its outer edge; the underside grey-white suffused with brown.

Hab. Ceylon, Pundaloya (*Green*), 1 ♀ type, Centr. Province (*Alston*, *de Mowbray*), 1 ♂, 1 ♀. *Exp.* 16 millim.

Larva. Coccidiphagous, feeding on a species of *Lecanium* and forming a covering of their scales. (*E. E. Green*).

5163. **Eublemma apicipuncta.**

Anthophila apicipunctum, Saalm. Lép. Madag. p. 358, f. 166 (1891).

♂. Head and tegulæ pale rufous; thorax grey-brown; abdomen whitish tinged with rufous; pectus white; tibiæ and tarsi suffused

with rufous, the latter ringed with white. Fore wing grey suffused and irrorated with reddish brown, the basal half of medial area and the terminal area slightly darker except towards costa; a subbasal black point on costa; antemedial line represented by two slight dark points on costa and a point in cell; a faint dark discoidal point; medial line brown with black point at costa, angled outwards beyond upper angle of cell and oblique below vein 4; postmedial line with black point at costa, then indistinct, brownish faintly defined on outer side by whitish, excurved to vein 4, then incurved, some white points with slight brown streaks between them beyond it on costa; a subterminal series of black points with a small dentate mark below apex; a fine brown terminal line. Hind wing whitish suffused with red-brown and with traces of a postmedial line; the underside yellowish white suffused and irrorated with red except on inner area, a slight blackish discoidal point, indistinct curved rufous postmedial line and terminal series of black points from apex to vein 2.

Hab. Sierra Leone (*Clements*), 1 ♂; Madagascar. *Exp.* 16 millim.

5164. **Eublemma poliochroa**, n. sp. (Plate CLI. fig. 17.)

♀. Head and thorax white tinged with pale reddish brown, the palpi and antennæ reddish brown; abdomen grey suffused with reddish brown; tarsi brownish ringed with white. Fore wing grey tinged with reddish brown, the costal edge pale rufous; a subbasal black point on costa; antemedial line with black point at costa, then very indistinct, brownish, curved; a slight dark discoidal lunule; medial line with black point at costa, then indistinct, brown, excurved to vein 4 just beyond the cell, then oblique; postmedial line brown with black point at costa, oblique to vein 7, then minutely dentate, incurved below vein 4, some slight whitish points beyond it on costa; traces of a pale subterminal line with a series of black points on its outer edge; a fine dark terminal line; cilia rufous with a grey line at base. Hind wing grey tinged with rufous; an indistinct oblique brown medial line except on costal area; an indistinct sinuous postmedial line; traces of a pale subterminal line with a series of black points on its outer edge except towards costa; a fine dark terminal line; cilia rufous with a grey line at base; the underside white, the costal area faintly tinged with ochreous, the terminal area slightly irrorated with brown, traces of a postmedial line, a terminal series of blackish striæ.

Ab. 1. Fore wing with the basal half of medial area suffused and irrorated with red-brown.

Hab. Singapore (*Ridley*), 2 ♀ type. *Exp.* 22 millim.

*5165. Eublemma pulvinariæ.

Thalpochares pulvinariæ, Oliff. Agric. Gaz. N.S. Wales, iii. p. 179 (1892), & iv. p. 685, plate. f. 2.

♀. Head, antennæ, and tegulæ pale brownish ochreous; thorax pale ash-grey; abdomen silvery grey; legs white, the tibiæ and tarsi irrorated with brownish ochreous. Fore wing pale glossy silvery grey very indistinctly irrorated with pale brownish ochreous; antemedial, medial, and postmedial lines brownish ochreous, excurved below costa, then oblique, the postmedial line somewhat incurved below vein 4 and with a diffused brownish ochreous mark beyond it on costa; subterminal line represented by a series of black points, confluent towards apex to which it is bent outwards; cilia reddish ochreous. Hind wing pale fuscous grey, ochreous white at base and inner margin, the termen darker; the underside silvery white slightly irrorated with fuscous except at base and inner margin.

Hab. N. S. Wales, Murray R., Wentworth. *Exp.* 22 millim. This species is unknown to me.

Larva. Yellowish white, the head and thoracic plate red-brown; feeds on the eggs, adult females and ovisacs of the salt-bush scale, *Pulvinaria maskelli*. xii.

5166. Eublemma glaucochroa. (Plate CLII. fig. 18.)

Eublemma glaucochroa, Turner ined.

Head, thorax, and abdomen whitish mixed with rufous; pectus and ventral surface of abdomen whiter. Fore wing greyish suffused with rufous and thickly irrorated with black; antemedial line whitish, incurved below submedian fold; a whitish medial line, oblique from costa to lower angle of cell, then slightly incurved; postmedial line whitish, excurved at middle; subterminal line indistinct, whitish, slightly excurved below vein 7 and at middle; a fine dark terminal line; cilia with a faint whitish line at base. Hind wing whitish tinged and irrorated with reddish brown especially on terminal half; a fine dark terminal line; the underside white faintly tinged with rufous and irrorated with black except on inner area, traces of diffused, curved postmedial and subterminal lines.

Hab. Queensland (*Arnold*), 1 ♂, 1 ♀. *Exp.* 20 millim. Type † in Coll. Turner.

5167. Eublemma silicula. (Plate CLII. fig. 19.)

Eublemma silicula, Swinh. A. M. N. H. (6) xix. p. 167 (1897).

Head and tegulæ rufous; thorax and abdomen white tinged with rufous; pectus, legs, and ventral surface of abdomen white. Fore wing white thickly irrorated with rufous, the terminal area suffused with rufous, the costal edge white; a slight brown subbasal line

from costa to submedian fold with black point on costa; antemedial line brown with black point on costa, sinuous: two minute blackish points in middle of cell and a discoidal point; medial line brown, oblique from costa to just beyond upper angle of cell and incurved below vein 4, slightly defined on outer side by white; postmedial line brown slightly defined on outer side by white and with black point at costa, oblique from costa to vein 6, then minutely dentate, slightly incurved at discal fold, oblique below vein 4 and angled inwards in submedian fold, the costa beyond it with alternating black and white points: subterminal line indistinct, whitish with a series of minute blackish points on its outer edge, minutely dentate and slightly angled inwards at discal and submedian folds; cilia rufous with fine pale striæ. Hind wing whitish thickly irrorated with rufous except on costal area, the terminal area suffused with rufous; an indistinct rufous medial line slightly defined on outer side by whitish and not extending to costa; an indistinct waved rufous postmedial line defined on outer side by whitish; a minutely waved whitish subterminal line with some black scales on its outer edge; cilia rufous with fine pale striæ; the underside white tinged with rufous.

Ab. 1. Both wings with the cilia deep rufous at middle and pink at tips.—Queensland.

Hab. Punjab, Kangra Valley (*Dudgeon*), 1 ♀, Allahabad, 2 ♂, 1 ♀; Sind, Karáchi (*Swinhoe*), 2 ♂ type; Queensland, Townsville (*Dodd*), 1 ♂. *Exp.* 18–20 millim.

5168. Eublemma coccidiphaga. (Plate CLII. fig. 20.)

Eublemma coccidiphaga, Hmpsn. Moths Ind. iv. p. 516 (1896).

♂. Head and tegulæ rufous mixed with ochreous; thorax and abdomen ochreous white tinged with rufous; fore legs and the tarsi rufous, the latter ringed with white. Fore wing ochreous white tinged with rufous, the costal edge red-brown towards base; antemedial line with black point at costa, then very indistinct, sinuous; a fuscous discoidal spot; medial line indistinct, brownish with black point at costa, oblique from costa to just beyond upper angle of cell and incurved below vein 4; postmedial line brownish with black point at costa and slightly defined on outer side by whitish, oblique from costa to vein 6, slightly incurved at discal fold, incurved below vein 4 and excurved above inner margin, the costa beyond it red-brown with some white points on it: a faint waved whitish subterminal line, angled inwards at discal and submedian folds and with traces of black points on its outer edge towards costa; a pale rufous terminal line: cilia pale rufous with a fine whitish line at base. Hind wing ochreous white tinged with rufous; an indistinct oblique rufous medial line: a slight minutely waved brownish postmedial line faintly defined on outer side by

white; a brown terminal line; cilia pale rufous with a fine whitish line at base; the underside ochreous white faintly tinged with rufous.

Ab. 1. Fore wing with the discoidal spot almost obsolete, suffused with white scales.

Ab. 2. Fore wing with the medial area except towards costa and hind wing with the antemedial area except the costa and inner margin suffused with chocolate-brown.

Hab. Ceylon, Puttalam (*Green, Pole*), 4 ♂ type. *Exp.* 20–24 millim.

Larva. Colour pinkish or greenish. Feeds on various species of Coccids such as *Lecanium* and *Pulvinaria*, living in a case formed of their remains, the case of the young larva being formed of a single scale to which additions are made as required and having a four-sided valve at anterior end (*E. E. Green*).

5169. Eublemma vestina. (Plate CLII. fig. 21.)

Eublemma vestina, Swinh. Trans. Ent. Soc. 1904, p. 140.

♂. Head, thorax, and abdomen white, the palpi, frons, and antennæ tinged with red-brown; fore and mid tarsi brownish ringed with white. Fore wing white; a subbasal blackish point on costa; antemedial line black, slightly bent inwards to costa and diffused on outer side below the costa, almost obsolete towards inner margin, diffused streaks of blackish and red scales from it to medial line below costa and in submedian fold; some red irroration in end of cell and a black discoidal bar; medial line blackish, oblique from costa to just beyond upper angle of cell and incurved below vein 4; postmedial line with oblique black bar from costa, then very indistinct, pale rufous, slightly dentate at veins 4, 3, then oblique; the costa towards apex brownish with some pale points; a subterminal series of small black spots slightly incurved at discal fold, the area beyond them tinged with brown except at apex; a brown terminal line. Hind wing white; traces of a brownish medial line on inner area with a small black spot at inner margin; traces of a punctiform postmedial line; terminal area tinged with ochreous with a white subterminal line with a few black scales on its outer edge; a fine brown terminal line; the underside ochreous white with a terminal series of slight dark lunules.

Hab. Labuan, 1 ♂ type. *Exp.* 18 millim.

5170. Eublemma seminivea.

Eublemma seminivea, Hmpsn. P. Z. S. 1896, p. 262, pl. x. f. 19.

Head, thorax, and abdomen pure white; palpi with the 2nd joint tinged with red-brown near base; fore and mid tibiæ and tarsi tinged with red-brown, the tarsi ringed with white. Fore wing

with the basal half pure white, the terminal half blood-red; subbasal and antemedial black points on costa; a slight erect blackish medial line bounding the white area and very slightly angled outwards in discal and submedian folds; a white patch on costa towards apex; faint traces of a sinuous whitish subterminal line with some minute black points on its outer edge; cilia white irrorated with rufous except at base and tips. Hind wing white, the terminal area tinged with brown; the underside white with a faint brown tinge at apex.

Hab. Br. E. Africa, Neugia (*Crawshay*), 1 ♂; Aden (*Yerbury*), 1 ♂ type; Madras, Gooty (*Campbell*), 5 ♀. *Exp.* 14 millim.

5171. Eublemma anachoresis.

Xanthoptera anachoresis, Wllgrn. Wien. Ent. Mon. vii. p. 148 (1863).
Thalpochares accedens, Feld. Reis. Nov. pl. 108. f. 8 (1874).
Thalpochares divisa, Moore, P. Z. S. 1881. p. 371; id. Lep. Ceyl. iii. p. 53, pl. 150. f. 10; Hmpsn. Moths Ind. ii. p. 341.
Thalpochares leonata, Butl. Trans. Ent. Soc. 1886, p. 404.

Head and thorax pale yellow, the patagia faintly tinged with rufous except at base; abdomen ochreous yellow. Fore wing with the basal half yellow, the terminal half purplish pink with some rufous suffusion before subterminal line; a faint pinkish tinge in base of cell; minute subbasal and antemedial black points on costa; a fine oblique black medial line bounding the yellow area; two minute black discoidal points; postmedial line brown, oblique from costa to vein 7, then very indistinct and angled inwards in discal and submedian folds; subterminal line very close to termen, white with a series of black points on its outer edge, excurved below costa and at middle; a fine pink terminal line; cilia rufous, pinkish at base and with a slight whitish line near tips. Hind wing ochreous yellow, the terminal area tinged with brown; a fine brown terminal line; the underside yellow with the costal and terminal areas tinged with rufous.

Hab. Gold Coast, Accra (*Sir G. Carter*), 4 ♂, 2 ♀; N. Nigeria, Borgu, Yelwa L. (*Migeod*), 2 ♂, 1 ♀; Congo (*Curror*), 1 ♀; Zanzibar (*de la Garde*), 1 ♀; Br. E. Africa, Mombasa (*Chadwick*), 2 ♂, Teita (*Jackson*), 1 ♂, Taveta (*Rogers*), 1 ♂, Athi Valley (*Crawshay*), 1 ♂, Kitwi (*Crawshay*), 1 ♀; Br. C. Africa, Likoma (*de Jersey*), 2 ♀; Mosambique, Delagoa Bay (*Monteiro*), 1 ♂; Transvaal, Pretoria (*Janse*), 2 ♂, Reitfontein (*Janse*), 1 ♀; Natal, Estcourt (*Hutchinson*), 1 ♂, 1 ♀; Basutoland, Masile (*Crawshay*), 1 ♂, Maseru (*Crawshay*), 1 ♀; Cape Colony (*Drege*), 1 ♀, Transkei (*Miss F. Barrett*), 3 ♂, 1 ♀, Annshaw (*Miss F. Barrett*), 1 ♂; Punjab, Allahabad, 2 ♂ type *divisa*; Bengal, Calcutta, 1 ♀; Bombay (*Leith*), 1 ♀; Ceylon, 3 ♂; Andamans (*Rogers*), 1 ♀; Java (*Horsfield*), 1 ♂, 1 ♀; Queensland, Townsville (*Dodd*), 1 ♂, Cedar Bay (*Meek*), 1 ♂, Rockhampton, 1 ♂ type *leonata*, Brisbane

(*Turner*), 1 ♀, Duaringa (*Arnold*), 2 ♂, 2 ♀. *Exp.* 14–20 millim.

5172. **Eublemma perobliqua**, n. sp. (Plate CLII. fig. 22.)

Head white, the antennæ brownish; thorax and abdomen rufous, the pectus, legs, and ventral surface of abdomen with some white. Fore wing with the basal half yellow suffused with rufous, the terminal half pale purplish pink with rufous suffusion before the subterminal line; a yellowish white streak below basal half of costa; a minute antemedial blackish point on costa; medial line black defined on inner side by white, oblique, from below costa to inner margin, bounding the rufous area; traces of a brown postmedial line excurved below costa and at middle, then oblique; subterminal line white with a series of minute black points on its outer edge, oblique, from below apex to inner margin, the rufous suffusion running out obliquely to apex; a fine rufous terminal line; cilia white finely striated with rufous and with a slight rufous line at middle. Hind wing yellow suffused with rufous; traces of a pale minutely waved subterminal line from discal fold to tornus towards which it is defined on inner side by brown; a fine brown terminal line; cilia with two slight brownish lines at middle; the underside yellow, the apical half of costal area suffused with fiery red.

Hab. Br. E. Africa, Tana R. (*Crawshay*), 1 ♀ type, Kitwi (*Crawshay*), 1 ♀, Kilima-n'jaro (*Jackson*), 1 ♂. *Exp.* 20 millim.

5173. **Eublemma acarodes**. (Plate CLII. fig. 23.)

Eublemma acarodes, Swinh. A. M. N. H. (7) xix. p. 53 (1907).

♀. Head and thorax white, the antennæ brown; abdomen white dorsally suffused with brown. Fore wing ochreous white, the area from medial to subterminal lines deep purplish pink extending to termen at apex and tornus, the costa tinged with red-brown towards base; medial line red-brown, very oblique, straight; postmedial line slight and indistinct, acutely angled outwards below costa, then very oblique; subterminal line represented by minute black points with very small dentate white marks before them from below costa to discal fold, and by an oblique black striga with dentate black marks before it between vein 3 and submedian fold; an oblique brown mark from apex and fine brownish terminal line; cilia deep pink at base at tornus. Hind wing whitish tinged with brown, darker towards termen; a dark terminal line; cilia whitish tinged with brown towards base; the underside white, the costal and terminal areas irrorated with brown, a terminal series of black points from apex to vein 2.

Hab. Angola, Bihe, 1 ♀ type; Mashonaland, Salisbury (*Marshall*), 1 ♀. *Exp.* 16–18 millim.

5174. Eublemma cochylioides.

Micra cochylioides, Guen. Noct. ii. p. 245 (1852).
Micra rosita, Guen. Noct. ii. p. 245 (1852); Hmpsn. Moths Ind. ii. p. 340.
Thalpochares phœnissa, Led. Verh. zool.-bot. Ges. Wien, 1855, p. 207, pl. 2. f. 13; Staud. Cat. Lep. pal. p. 228.
Micra derogata, Wlk. xii. 825 (1857); Moore, Lep. Ceyl. iii. p. 53, pl. 150. f. 18.
Thalpochares calida, Rebel, Ann. Nat. Hofmus. Wien, p. 63 (1894).

Head and thorax white slightly tinged with ochreous; antennæ brownish; abdomen pale ochreous, the ventral surface whitish. Fore wing ochreous white, the area from medial to subterminal lines pale pink; medial line rufous, diffused, very oblique; faint traces of a postmedial line, bent outwards to vein 6 near subterminal line and very oblique below vein 4; subterminal line represented by minute black points from costa to discal fold and oblique black striæ with dentate white marks before them below veins 3 and 2; an oblique brownish mark from apex; cilia white faintly tinged with brown. Hind wing yellowish white suffused with reddish brown especially towards termen; cilia white; the underside ochreous white.

Ab. 1. *calida*. Fore wing with hardly a trace of pink suffusion.

Hab. Canaries, Las Palmas (*Leech*, *Meade-Waldo*), 2 ♂, 2 ♀; Gold Coast, Aburi (*Johnson*), 1 ♂, Accra (*Sir G. Carter*), 8 ♂; N. Nigeria, Borgu, Yelwa Lake (*Migeod*), 1 ♂; Egypt, Alexandria (*Graves*), 1 ♀, Cairo (*Graves*), 1 ♂, 1 ♀; Br. E. Africa, Machakos (*Crawshay*), 1 ♂; Br. C. Africa, L. Nyasa (*de Jersey*), 1 ♂; Bourbon; Mauritius; Syria, Beyrut (*Lederer*), 1 ♂, 1 ♀; Formosa, Takow (*Hobson*), 1 ♂; Bombay (*Leith*), 1 ♀; Madras, Coimbatore (*Walhouse*), 1 ♀; Ceylon (*Nietner*), 3 ♂, 1 ♀; Andamans, 1 ♂; Java, Arjuno (*Doherty*), 1 ♀; Sambawa (*Doherty*), 1 ♀; Queensland, Duaringa (*Arnold*), 2 ♂, Brisbane (*Turner*), 1 ♂, 1 ♀, Moreton Bay (*Diggles*), 3 ♂; N. S. Wales, Sydney (*Hunter*, *Diggles*, *Raynor*, *de la Garde*), 8 ♂ type *derogata*; Fiji, 1 ♂. *Exp.* 14–22 millim.

5175. Eublemma lentirosea, n. sp. (Plate CLII. fig. 24.)

♂. Head and thorax white, the antennæ tinged with rufous; abdomen ochreous white. Fore wing yellowish white; the costal edge rufous towards base; slight rufous streaks in and below base of cell; medial line white defined on inner side by red-brown suffusion, very oblique, from subcostal nervure to inner margin; the postmedial area slightly tinged with pink except towards costa and with slight pink streaks below vein 7 and in discal fold; postmedial line pink slightly defined on outer side by white, strongly bent outwards below costa to near subterminal line and incurved below vein 5; subterminal line white defined on inner side by rufous and with a pink mark before it in submedian fold, incurved

below vein 3 and not reaching inner margin; an oblique rufous bar from apex with a black point on it; a fine rufous terminal line; cilia tinged with rufous with a white line at base and slight white line at middle. Hind wing yellowish white tinged with rufous towards termen; a brown terminal line; cilia white; the underside white, the costal area slightly irrorated with brown.

Hab. Orange R. Colony, Bloemfontein (*Eckersley*), 1 ♂ type. *Exp.* 18 millim.

5176. Eublemma roseana.

Thalpochares roseana, Moore, P. Z. S. 1881, p. 370; Butl. Ill. Het. B. M. vii. p. 66, pl. 130. f. 3; Hmpsn. Moths Ind. ii. p. 340.

Head and thorax white; palpi except at tips, antennæ except at base, and fore legs tinged with rufous; abdomen ochreous white. Fore wing yellowish white, the area from the medial to postmedial lines purplish pink except at costa; the costa pale rufous to the very oblique pale rufous diffused medial line; postmedial line deep purplish pink slightly defined on outer side by whitish, very oblique from costa to vein 7 near termen and incurved below vein 4; an oblique rufous bar from apex and a subterminal rufous patch between veins 3 and 1; a fine rufous terminal line; cilia white at base, tinged with rufous at tips. Hind wing yellowish white tinged with rufous towards termen; a fine brown terminal line; cilia yellowish white; the underside yellowish white, the costal and terminal areas irrorated with brown, a terminal series of dark points from apex to vein 2.

Hab. Punjab, Dharmsála (*Hocking*), 3 ♂ type; Bombay (*Leith*), 1 ♀; Madras, Nilgiris (*Hampson*), 1 ♀; Queensland, Duaringa (*Arnold*), 4 ♀. *Exp.* 12–14 millim.

5177. Eublemma glaucizona. (Plate CLII. fig. 25.)

Eublemma glaucizona, Hmpsn. A. M. N. H. (8) i. p. 489 (1908).

♂. Head, thorax, and abdomen ochreous white tinged with brown; fore legs brown. Fore wing ochreous white, the costa suffused with brown to middle and the inner margin irrorated with brown, the outer half of medial area suffused and striated with brown except towards costa, the terminal area suffused with brown; a slight antemedial black point in cell and traces of an oblique sinuous antemedial line from cell to inner margin; an oblique slightly curved medial blackish line with slight brownish suffusion before it; a black discoidal bar: postmedial line blackish, bent outwards below costa, then somewhat punctiform to vein 4, then incurved and indistinct, some whitish points beyond it from costa and an oblique blood-red shade from apex; a subterminal series of blackish points from costa to submedian fold; a red terminal line; cilia white mixed with grey, with an oblique black bar at apex and two fine dark lines at middle. Hind wing whitish suffused with brown;

a dark terminal line; cilia suffused with brown at base, white at tips; the underside white irrorated with brown, the terminal area tinged with brown, a fuscous discoidal point and terminal series of black points.

Hab. Cape Colony, Simonstown (*de la Garde*), 1 ♂, Kalk Bay (*Meade-Waldo*), 1 ♂ type, Table Mt. (*Meade-Waldo*), 1 ♂. *Exp.* 20 millim.

5178. **Eublemma ochrobasis**, n. sp. (Plate CLII. fig. 26.)

Head, thorax, and abdomen yellowish white, the head and tegulæ tinged with rufous; tarsi blackish ringed with white. Fore wing pale yellowish, the costa tinged with rufous on basal area, the outer part of medial area suffused with blackish brown, the terminal area with rufous; medial line rather diffused, red-brown, slightly excurved below costa, then oblique; a slight black discoidal point; postmedial line very indistinct, excurved from below costa to vein 4, then incurved and minutely waved, with alternating yellowish and black points beyond it on costa; subterminal line yellowish defined on inner side by rufous suffusion, minutely waved, excurved at middle; a terminal series of minute brown lunules; cilia yellow tinged with rufous, with a fine darker line near tips and some fuscous at tornus. Hind wing whitish tinged with brown especially on terminal area; a dark terminal line; cilia suffused with brown; the underside white irrorated with brown, a slight discoidal spot, traces of a brown subterminal shade, and a terminal series of black points.

Hab. Cape Colony, Deelfontein (*Sloggett*), 1 ♀ type, Rosmead (*Juby*), 2 ♂. *Exp.* 16–20 millim.

5179. **Eublemma thermobasis**, n. sp. (Plate CLII. fig. 27.)

Head and tegulæ white, the palpi except at tips and antennæ tinged with ochreous; thorax and abdomen white tinged with ochreous; pectus and ventral surface of abdomen white; legs tinged with ochreous. Fore wing with the basal half ochreous tinged with rufous, the base white, the rufous area bounded by a fine oblique black line defined on outer side by white; outer half of medial area and terminal area white irrorated with grey, the area between the postmedial and subterminal lines ochreous tinged with rufous; two black discoidal points on a white mark; postmedial line fuscous slightly defined on outer side by white, excurved and somewhat dentate between veins 7 and 4, then strongly incurved; subterminal line white defined on outer side by slight black points, waved, bent inwards and terminating on the postmedial line at vein 1; a blackish patch at apex and fine black terminal line; cilia pale rufous with a fine white line at base and some fuscous irroration at tornus. Hind wing white, the terminal area tinged with ochreous brown; a fine brown terminal line;

cilia white; the underside with the costal area faintly tinged with ochreous, the apical area slightly irrorated with brown.

Hab. Aden (*Chevalier*, *Yerbury*), 3 ♂, 3 ♀ type. *Exp.* 10–12 millim.

5180. Eublemma exigua.

Micra exigua, Wlk. xii. 823 (1857).
Micra nuga, Snell. Tijd. v. Ent. xvii. p. 58, pl. v. f. 4 (1872).
Thalpochares parvula, Moore, P. Z. S. 1881, p. 369; Hmpsn. Moths Ind. ii. p. 341.

Head and thorax ochreous white; antennæ brownish except at base; abdomen ochreous white dorsally suffused with brown. Fore wing ochreous white; the costa rufous towards base; an oblique, slightly sinuous brown medial line with rufous suffusion before it; two black discoidal points; postmedial line rufous defined on outer side by white, oblique from costa to vein 7, excurved to vein 4, then strongly incurved; subterminal line white, minutely dentate and with black points on its outer edge towards costa, then oblique to the postmedial line at vein 4, represented between veins 3 and 1 by a dentate black mark with whitish mark before it below submedian fold; the terminal area suffused with rufous; cilia rufous with a fine whitish line at base. Hind wing whitish tinged with brown especially on terminal area; a fine dark terminal line; cilia white tinged with brown at base; the underside white, the costal area slightly tinged with ochreous, a punctiform black terminal line.

Ab. 1. Fore wing with the suffusion before the medial line and the postmedial area except towards costa much darker.

Hab. Sierra Leone (*Morgan*, *Foxcroft*, *Clements*), 1 ♂, 4 ♀, type; Gold Coast, Accra (*Sir G. Carter*), 3 ♀, Kumasi (*Whiteside*), 1 ♀; Br. E. Africa, Eb Urru (*Betton*), 1 ♂, Kikuyu (*Crawshay*), 1 ♀; Zululand, Lr. Tugela R. (*Reynolds*), 1 ♀; Bombay, 1 ♂ type *parvula*, Deesa (*Nurse*), 1 ♂; Madras, Palnis (*Campbell*), 1 ♀; Tonkin, Haiphong (*Buckland*), 2 ♂. *Exp.* 14–20 millim.

5181. Eublemma parva.

Noctua parva, Hübn. Eur. Schmett., Noct. f. 356 (1808); Frr. Neue Beitr. pl. 545. f. 4; Stainton, Annual, 1859, p. 147, f. 1; Hmpsn. Moths Ind. ii. p. 341; Staud. Cat. Lep. pal. p. 228.
Noctua minuta, Dup. Lép. Fr., Suppl. iii. p. 557, pl. 47. f. 1 (1836).
Micra rubefacta, Mab. Ann. Soc. Ent. Fr. 1869, p. 56.
Micra chalybea, Swinh. P. Z. S. 1884, p. 518, pl. 47. f. 10.
Eublemma nymphodora, Meyr. Trans. Ent. Soc. 1902, p. 33.

Head, thorax, and abdomen ochreous white. Fore wing pale ochreous yellow, the outer half of medial area whiter and finely striated with brown except towards costa; a slight oblique somewhat sinuous medial dark line with rufous suffusion before it and

defined by white on outer side; two minute black discoidal points; postmedial line brown slightly defined on outer side by white, excurved from below costa to vein 4, then incurved and slightly sinuous, some whitish points beyond it on costa; an oblique rufous shade from apex to the excurved part of postmedial line with some slight white marks on its outer edge representing the subterminal line and minute black points towards apex; a fine brownish terminal line; cilia ochreous with a fine white line at base and brownish line towards tips. Hind wing white tinged with ochreous, the terminal area suffused with brown; a brown terminal line; cilia white; the underside white, the apical area slightly irrorated with brown.

Ab. 1. *rubefacta*. Fore wing more suffused with rufous.

Ab. 2. *nymphodora*. Hind wing nearly pure white.

Hab. S. Britain; S. France; Austria, Frey Coll., Galicia, Carniola, Croatia; Spain, Leech Coll.; Corsica, Leech Coll.; Italy, Rome, Zeller Coll., Pegli, Frey Coll., Capri (*C. S. Browne*); Sicily, Zeller Coll.; Algeria, Hammam-es-Salahin (*Walsingham*), 1 ♂; Morocco, Tangier, 1 ♂, Leech Coll.; Canaries, Tenerife (*Walsingham*,) 1 ♂; Greece; Turkey; Rumelia; Armenia; Asia Minor, Pontus, Bithynia, Taurus; Syria, Beyrut (*Lederer*), 1 ♂, Mardin; Egypt; Persian Gulf, Fao (*Cuming*), 1 ♂, 1 ♀; W. Turkestan, Turcomania; Punjab, Kangra (*Dudgeon*), 5 ♀, Allahabad, 2 ♀, Ferozpur (*Norse*), 1 ♂; Bengal, Pusa (*Lefroy*), 5 ♀, Naimpur (*Lefroy*), 2 ♂, 5 ♀; Sind, Karáchi (*Swinhoe*), 1 ♀ type *chalybea*; Bombay, 1 ♀; W. Australia, Carnarvon, type † ♂ *nymphodora* in Coll. Meyrick. *Exp.* 16–20 millim.

Larva. Barrett, Lep. Brit. vii. p. 196.

Feeds in the flower-shoots of *Inula montana* and *viscosa*, *Centaurea calcitrapa*, and in India in the flowers of Kukraunda. 7.

5182. Eublemma rivula. (Plate CLII. fig. 28.)

Thalpochares rivula, Moore, Lep. Atk. p. 140 (1882); Hmpsn. Moths Ind. ii. p. 341.

Thalpochares pusilla, Butl. Trans. Ent. Soc. 1886, p. 404.

Head and thorax white; palpi except at tips, antennæ and legs tinged with ochreous; abdomen ochreous, the ventral surface white. Fore wing ochreous white, the basal costal area and terminal half except at costa suffused with rufous; an oblique ochreous brown medial band, its outer edge slightly sinuous; two black discoidal points; postmedial line ochreous brown slightly defined on outer side by white, bent outwards below costa to near termen, oblique and sinuous below vein 4, a brown patch with some black on its outer edge beyond it in submedian interspace; an oblique ochreous brown shade from apex with a black point below it; a fine ochreous brown terminal line; cilia ochreous with a fine white line at base. Hind wing white, the terminal area suffused with brown; a brown terminal line; cilia white tinged with brown at apex; the

underside with the costal area tinged with ochreous, a terminal series of black points from apex to vein 2.

Ab. 1. Fore and hind wings much whiter.

Ab. 2. *pusilla*. Fore wing with the medial band and terminal area redder.

Ab. 3. Fore wing with the postmedial area except towards costa and the terminal area more uniform ochreous brown, a subterminal series of black points from apex to vein 4 with irregularly waved black mark below it.

Ab. 4. Fore wing nearly uniformly suffused with ochreous brown.

Hab. Bechuanaland, L. N'Gami (*Lugard*), 1 ♀; Transvaal, White R. (*Cooke*), 2 ♀, Rietfontein (*Janse*), 1 ♀: Natal, Estcourt (*Hutchinson*), 1 ♂, 2 ♀; Farquhar Is. (*Fletcher*), 3 ♂, 1 ♀; Bengal, Calcutta, 1 ♀ type; Madras, Nilgiris (*Hampson*), 1 ♀; Queensland, Peak Downs, 1 ♂ type *pusilla*, Brisbane (*Turner*), 2 ♂, Moreton Bay (*Diggles*), 1 ♀; N. S. Wales, Sydney (*Meyrick*), 1 ♂, Yeppoon (*Raynor*), 1 ♀, Parkside (*Raynor*), 4 ♂, 12 ♀; Victoria, Gisborne (*Lyell*), 1 ♂; S. Australia, Adelaide (*Lyell*), 1 ♀. *Exp.* 10–22 millim.

5183. Eublemma flavida. (Plate CLII. fig. 29.)

Eublemma flavida, Hmpsn. Ann. S. Afr. Mus. ii. p. 419 (1902).

♂. Head, thorax, and abdomen white tinged with ochreous. Fore wing very pale yellow; an oblique ochreous brown medial band somewhat diffused on inner side; a black discoidal point; postmedial line ochreous brown, angled outwards below costa to near subterminal line, then very oblique; subterminal line ochreous brown, somewhat diffused, arising from apex, angled inwards at vein 7 to near postmedial line, then outwards to termen at vein 5, then oblique; a fine ochreous brown terminal line; cilia ochreous, white at base. Hind wing white, the terminal area tinged with ochreous; a fine brown terminal line; cilia white; the underside with the costal area tinged with ochreous.

Hab. Natal, Estcourt (*Hutchinson*), 1 ♂; Cape Colony, Transkei (*Miss F. Barrett*), 1 ♂ type, Annshaw (*Miss F. Barrett*), 1 ♂. *Exp.* 18–20 millim.

5184. Eublemma albipennis, n. n. (Plate CLII. fig. 30.)

Thalpochares albida, Moore, P. Z. S. 1881, p. 370, nec Dup. 1842; Hmpsn. Moths Ind. ii. p. 341.

♀. Head, thorax, and abdomen white, the last slightly tinged with ochreous. Fore wing white; the basal costal area brownish ochreous; a very oblique brownish ochreous medial band, two slight black discoidal points and traces of a brownish postmedial line angled outwards below costa and oblique and sinuous below vein 4; an oblique ochreous brown subterminal line from apex to vein 4.

forming somewhat dentate mark above and below vein 6, and an oblique brownish mark nearer the termen between veins 3 and 1; a fine ochreous brown terminal line: cilia white mixed with ochreous. Hind wing white, the terminal area tinged with brown: cilia white.

Hab. Bombay, 2 ♀ type. *Exp.* 14 millim.

5185. Eublemma noctualis.

Pyralis noctualis, Hübn. Eur. Schmett., Pyr. f. 38 (1796).
Noctua paula, Hübn. Eur. Schmett., Noct. f. 452 (1818); Dup. Lép. Fr., Suppl. iii. p. 527, pl. 44. f. 7 & pl. 47. f. 2; Staud. Cat. Lep. pal. p. 229.

Head, thorax, and abdomen white, the palpi, vertex of thorax, legs and abdomen faintly tinged with rufous. Fore wing white, the basal area slightly irrorated with olive-brown, the outer half of medial area more distinctly irrorated with olive-brown except towards costa, the terminal area suffused with pale olive-brown; a small antemedial brown spot on costa and a slight oblique blackish line from cell to inner margin with an oblique pale red band beyond it extending to costa, defined on outer side by the slight minutely waved brown medial line; postmedial line brown and defined by white on outer side towards costa, excurved below costa, then blackish and defined by white on inner side, oblique and excurved at middle, a white point beyond it on costa; subterminal line slight, white, minutely waved, a black point on its outer edge below apex; a terminal series of slight brown striæ; cilia white tinged with brown except at base, a fine white line near tips. Hind wing white, the terminal area suffused with brown except towards tornus; cilia white; the underside white, the apical area slightly irrorated with brown, a terminal series of slight blackish points from apex to vein 2.

Hab. S. Britain; S. France, Sand Coll.; Germany, Zeller, Frey, and Leech Colls.; Austria, Vienna (*Heine*); Hungary, Leech Coll.; Switzerland, Leech Coll.; Italy, Piedmont; S. Scandinavia; Russia, Livonia, Zeller Coll., Sarepta; Armenia; Kurdistan; Asia Minor, Taurus; Syria, Mardin; Persia, 1 ♂, Leech Coll.; E. Siberia, Ussuri. *Exp.* 16–20 millim.

Larva. Meyr. Brit. Lep. p. 169; Barrett, Lep. Brit. vi. p. 198.

Pale green with slender double darker dorsal line; hairs minute, white, arising from black tubercles; spiracles white ringed with black; head dark green; thoracic plate brownish yellow. Feeds in the stems of *Gnaphalium arenarium*. 6.

5186. Eublemma vagneri.

Micra wagneri, Herr.-Schäff. Eur. Schmett. ii. p. 441, Noct. ff. 555-6 (1851); Guen. Noct. ii. p. 244, pl. 10. f. 13 (1852); Frr. Neue Beitr. pl. 576. f. 1; Staud. Cat. Lep. pal. p. 229.
Thalpochares ochreola, Staud. Iris, xii. p. 385 (1899).

♂. Head, thorax, and abdomen white, the last tinged with

brown except at base; palpi tinged with brown except at tips; antennæ and fore legs brownish. Fore wing pure white, the costal edge brownish; a slight oblique medial line with pale rufous band before it; postmedial line slight, oblique, angled outwards at middle, the area beyond it pale rufous; cilia white tinged with brown except at base and tips. Hind wing white, the terminal half suffused with pale brown; cilia white tinged with brown; the underside white, the costal area and terminal area to vein 2 slightly irrorated with brown.

Ab. 1. *ochreola*. Fore wing more uniform in colour and tinged with fuscous.

Hab. Armenia; Asia Minor, Pontus, Taurus, 3 ♂, Amanus Mts., 3 ♂; Syria, 4 ♂, Leech Coll., Mardin. *Exp.* 18–20 millim.

5187. Eublemma elychrysi.

Erastria elychrysi, Rmbr. Ann. Soc. Ent. Fr. 1833, p. 24, pl. 2. f. 15; Dup. Lép. Fr., Suppl. iii. p. 529, pl. 44. f. 8; Herr.-Schäff. Eur. Schmett., Noct. f. 595; Staud. Cat. Lep. pal. p. 229.

Head white, the palpi except at tips and antennæ olive-brown: thorax white suffused with olive-brown; abdomen white tinged with olive leaving white segmental lines; pectus, legs, and ventral surface of abdomen white, the forelegs olive-brown with the tarsi ringed with white. Fore wing olive-brown; a white patch on basal costal area; a white antemedial band, angled outwards below costa and inwards below submedian fold; an oblique medial white band, its inner edge slightly sinuous, its outer defined by the slight black postmedial line except towards costa and acutely angled outwards at middle; an oblique white bar from costa towards apex and an oblique bar from apex of cilia with traces of a white subterminal line from it to inner margin; a slight white mark on middle of termen; cilia olive with fine white line at base, chequered white and fuscous at tips. Hind wing whitish suffused with olive-brown; cilia white with an olive line near base except towards tornus; the underside white, the costal and terminal areas irrorated with a few brown scales, slight black points on termen above and below vein 5.

Hab. Corsica, Zeller, Frey, and Leech Colls.; Sardinia, Zeller Coll.; C. Italy; Dalmatia. *Exp.* 18 millim.

Larva. Kirby, Butt. & Moths Eur. p. 289; Hffm. Raup. p. 142.

Brownish or reddish green with a dark dorsal and white subdorsal line; two anterior pairs of prolegs absent. Food-plant: *Helichrysum angustifolium*.

5188. Eublemma permixta.

Thalpochares permixta, Staud. Iris, x. p. 266. pl. 4. f. 7 (1897); id. Cat. Lep. pal. p. 227.

♀. Head, thorax, and abdomen white faintly tinged with pale

olive; fore tibiæ and tarsi brownish, the latter ringed with white. Fore wing white faintly tinged with pale olive-green, the costal edge olive towards base; traces of an oblique olive medial line slightly defined on outer side by white; traces of an olive postmedial line defined on inner side by white, acutely angled outwards at middle, then incurved; an oblique olive shade from apex; a terminal series of slight dark points; cilia with a slight dark line near tips. Hind wing white tinged with brown especially on apical area; cilia white with two slight brown lines near base from apex to vein 2; the underside white with a terminal series of black points from apex to vein 2.

Hab. Italy, Capri (*C. S. Browne*), 1 ♀; Algeria, Chelala. *Exp.* 20 millim.

5189. Eublemma viridula.

Micra viridula, Guen. Ann. Soc. Ent. Fr. 1841, pp. 225–249; Staud. Cat. Lep. pal. p. 229.
Erastria minuta, Frr. Neue Beitr. vi. p. 104, pl. 545. f. 3 (1852).
Micra dalmatina, Herr.-Schäff. Eur. Schmett. ii. p. 440 (1851).
Micra elychrysi, Herr.-Schäff. Eur. Schmett., Noct. f. 250 (nec Rmbr.).

Head, thorax, and abdomen white faintly tinged in parts with olive; fore and hind tibiæ and tarsi brownish, the latter slightly ringed with white. Fore wing white, the basal area faintly tinged with olive-green, the terminal area suffused with pale olive-green; a slight oblique dark medial line with pale olive-green band before it, and a pure white band beyond it defined on outer side by the slight black postmedial line almost obsolete towards costa and inner margin and acutely angled outwards at middle; an oblique olive shade from apex; a terminal series of slight blackish points; cilia pale olive, white at base and tips. Hind wing white suffused with ochreous brown; a slight brown terminal line; cilia ochreous with two fine brown lines near base and white tips; the underside white with punctiform blackish terminal line.

Hab. Italy; Austria, Carniola, Croatia, Dalmatia, Zeller, Frey and Leech Colls.; Greece; Armenia; Asia Minor, Bithynia. *Exp.* 16–18 millim.

5190. Eublemma candidana.

Pyralis candidana, Fabr. Ent. Syst. iii. 2, p. 245 (1714); Staud. Cat. Lep. pal. p. 229.
Noctua minuta, Hübn. Eur. Schmett., Noct. f. 451 (1818).
Tortrix perlana, Hübn. Eur. Schmett., Tort. f. 316 (1830).
Anthophila parva, Dup. Lép. Fr., Suppl. iii. p. 525, pl. 44. f. 6 (nec Hübn.).
Micra skajiota, Herr.-Schäff. Eur. Schmett. ii. p. 441; Noct. f. 282 (1851).
Thalpochares impura, Staud. Cat. Lep. Eur. ed. ii. p. 133 (1871).
Thalpochares cantabrica, Rössl. Stett. Ent. Zeit. 1877, p. 365.
Thalpochares rectifascia, de Joan. Bull. Soc. Ent. Fr. 1893, p. ccxxxv, & Ann. Soc. Ent. Fr. 1908, p. 733, pl. 15. f. 3.

Head and tegulæ pure white, the palpi except at tips and antennæ tinged with ochreous; thorax and abdomen white tinged with

ochreous. Fore wing white slightly tinged with brownish ochreous, the terminal area brownish ochreous; a slight oblique dark antemedial line from cell to inner margin and a fine oblique dark medial line with a blood-red band between them; some brownish suffusion on discocellulars; postmedial line fine, dark, acutely angled outwards at middle, then incurved and with blood-red suffusion beyond it; a whitish mark on costa towards apex; subterminal line very slight, whitish, excurved below costa and with some blood-red suffusion before it and a black point on its outer edge, then oblique; a terminal series of black points; cilia ochreous with white line at base and white tips. Hind wing white tinged with ochreous, the terminal area suffused with brown; cilia white with a slight ochreous line near base except towards tornus; the underside white, the apical area slightly irrorated with brown.

Ab. 1. *impura*. Fore wing more tinged with fuscous.

Ab. 2. *scafiota*. Fore wing with the ground-colour pure white.

Ab. 3. *rectifascia*. Fore wing with the oblique medial band obsolete, the antemedial line slightly angled outwards below costa, then erect.—Brittany.

Hab. S. France, Sand and Leech Colls.; Spain, Zeller Coll., Bilbao, Zeller and Frey Colls., Catalonia, Castille, Cuenca (*Chapman*), Andalusia, Murcia, Grenada (*Walsingham*); Corsica, Leech Coll.; Creie; Armenia; Syria, Mardin; W. Turkestan, Fergana. *Exp.* 14–18 millim.

5191. Eublemma ornatula.

Thalpochares ornatula, Feld. Reis. Nov. pl. 108. f. 19 (1874).

Head and thorax white tinged with ochreous; antennæ brown; abdomen white tinged with brown. Fore wing white, the basal costal area tinged with pale reddish olive; a nearly straight oblique black medial line with reddish olive band before it with some black irroration on it in and below cell and above inner margin, followed by a white band before the slight black postmedial line which is slightly excurved below costa and produced outwards to a strong tooth at middle, and with black streaks beyond it on veins 6, 5, 3, 2; subterminal line represented by minute white points with minute black points beyond them towards apex and a white striga towards tornus, some rufous irroration before it; a terminal series of black points except towards apex; cilia white tinged with ochreous except at tips. Hind wing white slightly tinged with brown, darker in female; a fine dark terminal line; cilia white tinged with ochreous at base; the underside with the costal area tinged with ochreous, the costal area and terminal area to vein 2 irrorated with brown, a terminal series of black points.

Ab. 1. Fore wing with the white areas more or less completely suffused with brown; hind wing darker.

Hab. Br. E. Africa, Kikuyu (*Crawshay*), 3 ♂, 1 ♀; Rhodesia, Bulawayo (*Eyles*), 1 ♀; Transvaal (*Cholmley*), 1 ♀, Mkabela Mt.

(*Crawshay*), 1 ♀, Piet Retief (*Crawshay*), 1 ♂, White R. (*Cooke*), 1 ♀, Middleburg (*Janse*), 2 ♂, 1 ♀; Natal, Estcourt (*Hutchinson*), 6 ♂, 1 ♀; Basutoland, Machacha (*Crawshay*), 1 ♂, Masite (*Crawshay*), 1 ♂, 1 ♀; Maseru (*Crawshay*), 1 ♀; Cape Colony, Grahamstown, 1 ♂, Simonstown (*de la Garde*), 1 ♀. *Exp.* 14–18 millim.

5192. **Eublemma odontophora**, n. sp. (Plate CLII. fig. 31.)

Head and thorax white; palpi, antennæ, tips of tegulæ, and legs tinged with ochreous; abdomen white tinged with ochreous. Fore wing pure white, the costal edge brown on basal area; an oblique dark ochreous brown medial band defined by the slight black antemedial and medial lines, the former somewhat excurved in cell; a slight oblique black postmedial line, somewhat excurved below costa and produced to a long tooth on outer side at middle, the area beyond it dark ochreous brown; a fine black terminal line; cilia white at base, brown and white at tips. Hind wing white, the terminal area slightly tinged with brown; cilia white slightly tinged with brown except at base; the underside white with the costal area slightly tinged with ochreous and irrorated with brown.

Hab. Sokotra, Jena-agahan (*O.-Grant*), 1 ♂ type, Hadibu Plain (*O.-Grant*), 1 ♀. *Exp.* 12 millim.

5193. **Eublemma bifasciata.** (Plate CLII. fig. 32.)

Thalpochares bifasciata, Moore, P. Z. S. 1881, p. 371; Hmpsn. Moths Ind. ii. p. 341.

Head and thorax pure white, the antennæ and legs tinged with rufous; abdomen white tinged with rufous. Fore wing pure white, the costal edge rufous towards base; an oblique rufous medial band defined by the slight blackish antemedial and medial lines; a slight blackish postmedial line, excurved below costa and produced outwards to a tooth at middle, the area beyond it rufous; cilia white. Hind wing white, the terminal area faintly tinged with ochreous; the underside with the costal and terminal areas faintly tinged with ochreous.

Hab. N. Nigeria, Borgu, Yelwa L. (*Migeod*), 1 ♂; Aden (*Yerbury*), 3 ♂, 2 ♀; Punjab, Allahabad, 1 ♂ type; Madras, Malabar (*Cardew*), 1 ♂; Ceylon, Puttalam (*Pole*), 1 ♀. *Exp.* 14 millim.

5194. **Eublemma leucodesma.** (Plate CLIII. fig. 1.)

Thalpochares leucodesma, Lower, P. Linn. Soc. N. S. W. xxiv. p. 88 (1899).

Head and thorax white tinged with reddish ochreous; abdomen pale reddish ochreous. Fore wing white tinged with ochreous; the costa reddish ochreous towards base; a slight oblique dark

medial line with diffused rufous band on its inner edge; a slight dark postmedial line excurved below costa and produced outwards to a tooth at middle, the area beyond it rufous, somewhat paler towards termen; some white points on costa towards apex and traces of a sinuous white subterminal line; cilia pale reddish ochreous with a white line at base. Hind wing ochreous yellow, the terminal area slightly tinged with rufous or the basal area whiter and the terminal area darker; cilia pale reddish ochreous; the underside yellow tinged with rufous.

Hab. N. Australia, Roebuck Bay (*J. J. Walker*), 1 ♀, Port Darwin (*J. J. Walker*), 1 ♂; W. Australia, Sherlock R. (*Clements*), 1 ♂, 1 ♀; Queensland, Duaringa (*Arnold*), 6 ♂. *Exp.* 16 millim.

5195. Eublemma lozostropha. (Plate CLIII. fig. 2.)

Eublemma lozostropha, Turner, P. Linn. Soc. N. S. W. xxvii. p. 118 (1902).

Head and thorax rufous with some white on vertex of head and tegulæ; abdomen red-brown with slight white segmental lines; palpi, pectus, legs, and ventral surface of abdomen white slightly tinged with red-brown. Fore wing deep rufous with some darker suffusion beyond the medial line and on terminal area; medial line oblique, white with some black scales on its inner edge; traces of a sinuous whitish postmedial line arising from the same point on costa as the medial line; some whitish points on costa towards apex; cilia white mixed with dark brown. Hind wing dark brown slightly mixed with greyish; cilia white mixed with dark brown; the underside whitish suffused and irrorated with brown except on basal and inner areas, the costal area tinged with rufous towards base.

Hab. W. Australia, Sherlock R. (*Clements*), 1 ♀, Roeburn, 2 ♀; Queensland, Duaringa (*Arnold*), 1 ♂, 3 ♀. *Exp.* 14–16 millim.

5196. Eublemma sperans.

Thalpochares sperans, Feld. Reis. Nov. pl. 108. f. 9 (1874).

♀. Head, thorax, and abdomen dark reddish brown with some white on vertex of head and tegulæ and yellow at base of abdomen; palpi white at base; pectus, legs, and ventral surface of abdomen brown mixed with white. Fore wing with the basal half deep rufous, the terminal half purplish brown; a slight antemedial black point on costa; medial line white, bounding the rufous area, oblique and slightly angled outwards at discal and submedian folds; an indistinct dark postmedial line excurved below costa and at middle, angled inwards at discal fold and incurved below vein 4, some white points beyond it on costa; subterminal line white, punctiform, defined on inner side by deep rufous suffusion, excurved below vein 7 and at middle; cilia with some white at tips. Hind wing deep

rufous, the cilia with some white at tips; the underside rufous irrorated with brown.

Ab. 1. Fore and hind wings more rufous.—Natal.

Hab. Natal, Estcourt (*Hutchinson*), 1 ♀; Cape Colony, Annshaw (*Miss F. Barrett*), 1 ♀. *Exp.* 18 millim.

5197. Eublemma sabia.

Thalpochares sabia, Feld. Reis. Nov. pl. 108. f. 16 (1874).

♂. Head, thorax, and abdomen ochreous white; legs suffused with red-brown. Fore wing ochreous white suffused with red-brown especially before the medial line and on terminal area, the costal edge brown on basal half; a black point in middle of cell; an oblique whitish line from costa beyond middle to middle of inner margin with a grey-black band beyond it from vein 6 to inner margin extending to the oblique whitish postmedial line, which is slightly excurved at middle and curved inwards at costa, some whitish points beyond it on costa; an oblique whitish line from termen below apex to inner margin just beyond the postmedial line; cilia white tinged with rufous. Hind wing ochreous white suffused with reddish brown, the cilia white; the underside ochreous white slightly irrorated with brown.

Hab. Cape Colony, Annshaw (*Miss F. Barrett*), 1 ♂. *Exp.* 20 millim.

5198. Eublemma mesophæa, n. sp. (Plate CLIII. fig. 3.)

♂. Head and tegulæ white suffused with rufous; thorax and abdomen grey tinged with brown; pectus, legs, and ventral surface of abdomen white tinged with brown, the fore legs rufous. Fore wing brownish white thickly irrorated with brown, the terminal area suffused with brown; antemedial line dark brown, oblique, angled outwards just below the cell; medial line defined by white on outer side and with a band of dark brown suffusion on inner side, oblique and slightly curved; postmedial line brown, oblique from costa to vein 7, then slightly angled inwards at discal and submedian folds and somewhat excurved at middle, some whitish points beyond it on costa; an almost straight oblique whitish subterminal line with a series of black points on its outer edge; the apex tinged with fiery red; a fine brown terminal line; cilia brown with a fine white line at base and whitish tips. Hind wing white suffused with ochreous; traces of diffused brown medial and postmedial lines; a fine brown terminal line; the underside white with traces of a curved postmedial line, the apical area irrorated with red, a terminal series of black points from apex to vein 2.

♀. Fore wing with the dark band before the medial line broad and diffused on inner side; hind wing suffused with brown.

Hab. Transvaal, Johannesburg (*Cooke, Cholmley*), 1 ♂, 2 ♀ type. *Exp.* 20 millim.

5199. Eublemma hansa.

Micra hansa, Herr.-Schäff. Schmett. Eur. ii. p. 436, Noct. f. 577 (1845); Staud. Cat. Lep. pal. p. 226.

Head, thorax, and abdomen white, the patagia tinged with yellow, the palpi and antennæ with rufous. Fore wing yellowish white; traces of a waved brownish antemedial line with a dark point on it in cell; a slightly sinuous and somewhat diffused red-brown medial line with dark striga on discocellulars; postmedial line red-brown, oblique towards costa, slightly incurved at discal fold, incurved below vein 4 and excurved above inner margin, the costa beyond it white with two rufous points; subterminal line whitish defined on inner side by brownish suffusion, excurved below vein 7 and at middle; an oblique rufous streak from apex and fine brownish terminal line; cilia brownish with a yellowish white line at base. Hind wing white faintly tinged with red-brown; a slight red-brown postmedial line from discal fold to inner margin, diffused subterminal band and terminal series of points; the underside with the costal and terminal areas irrorated with red-brown, a slight discoidal spot, faint diffused postmedial and subterminal bands and terminal series of points.

Hab. Caucasus, Helenendorf (*Lederer*), 1 ♀; Armenia, 2 ♀; D'Emmich Coll., 2 ♀; Persia, 1 ♂, Leech Coll. *Exp.* 30–32 millim.

Larva. Led. Ann. Soc. Ent. Belg. xiii. p. 35.

Grey-green with silvery white hairs from the warts; 1st two pairs of prolegs absent. Food-plant: *Echinops*, on the stem of which it forms a cocoon. 6.

5200. Eublemma debilis.

Thalpochares debilis, Christ. Rom. Mém. i. p. 129 (1884); id. idem, ii. p. 73, pl. 3. f. 9; Staud. Cat. Lep. pal. p. 228.
Thalpochares deleta, Staud. Cat. Lep. pal. p. 228 (1901).

♂. Head, thorax, and abdomen pure white; palpi reddish brown except at tips; fore and hind tibiæ and the tarsi reddish brown, the latter ringed with white. Fore wing pure white; the costal edge brown on basal half, interrupted by a white point just before the antemedial brown band, which is somewhat inwardly oblique and with a darker spot on it just below the cell, its outer edge representing the medial line; a black discoidal point; postmedial line represented by an oblique brown striga from costa, then hardly traceable and excurved at middle; subterminal line white, defined on inner side by reddish brown suffusion with a white striga on it from costa and on outer by a series of black points and an oblique brown mark from apex; cilia tinged with brown at tips and apex. Hind wing pure white with a slight brown antemedial line from cell to inner margin. Underside of fore wing suffused with brown except the inner area.

Ab. 1. *deleta*. Fore wing wholly white except a narrow obsolescent brownish antemedial band.—Biskra.

Hab. Algeria, Biskra; Russia, Caucasus, Derbent (*Christoph*), 1 ♂; Armenia; W. Turkestan, Turcomania. *Exp.* 18 millim.

5201. Eublemma compuncta.

Thalpochares compuncta, Led. Hor. Soc. Ent. Ross. viii. p. 15, pl. 2. f. 2 (1871); Staud. Cat. Lep. pal. p. 227.

Head, thorax, and abdomen white, the last slightly tinged with rufous; palpi, antennæ, and legs suffused with rufous. Fore wing pure white, the costal edge tinged with rufous towards base; a black point in middle of cell; an oblique rufous medial line with two black discoidal points on its outer edge; postmedial line rufous, very faint except towards costa where it is oblique, oblique below vein 4; subterminal line white with a series of black points on its outer edge and defined on inner side by rufous suffusion towards costa, minutely waved and slightly excurved at middle; cilia tinged with rufous at tips. Hind wing white, the terminal area tinged with reddish brown and with faint diffused postmedial and subterminal lines; cilia pure white; the underside tinged and irrorated with rufous except on inner area and with indistinct diffused medial and subterminal lines.

Ab. 1. Fore wing with the area before the medial line and the terminal area suffused with rufous, the subterminal black points obsolescent.

Hab. Syria, 2 ♂, 1 ♀, Leech Coll.; Persia, Schahkuh (*Christoph*), 1 ♂, Astrabad (*Ledever*), 1 ♂. *Exp.* 24–30 millim.

*5202. Eublemma fugitiva.

Thalpochares fugitiva, Christ. Hor. Soc. Ent. Ross. xii. p. 253, pl. 6. f. 25 (1877); Staud. Cat. Lep. pal. p. 226.

Head, thorax, and abdomen white. Fore wing white: black points at middle of cell and on discocellulars; an inwardly oblique nearly straight, reddish brown medial line, the ante- and postmedial lines almost obsolete; subterminal line reddish brown, very slightly excurved below vein 7 and at middle; a fine terminal reddish brown line. Hind wing white with incurved greyish postmedial and subterminal lines from discal fold to inner margin and a fine terminal line.

Hab. Persia, Schahrud. *Exp.* 28 millim. This species is unknown to me.

*5203. Eublemma munda.

Thalpochares munda, Christ. Rom. Mém. i. p. 131, pl. 8. f. 6 (1884); Staud. Cat. Lep. pal. p. 227.

♂. Head and thorax pure white, the palpi except at tips and antennæ reddish brown; legs tinged with brown; abdomen white tinged with brown except at base. Fore wing pure white; the

costal edge brownish ; a slight antemedial brown point on costa ; a narrow oblique red-brown medial band with the slight discoidal black striga just beyond it ; postmedial line slight, reddish brown, excurved below costa and at middle, slightly angled inwards at discal fold and incurved below vein 3 ; subterminal line very indistinct, white defined on inner side by brownish suffusion and on outer by a few black scales especially towards costa, excurved below costa and at middle and with rufous spot beyond it at apex ; a fine reddish brown terminal line ; cilia faintly tinged with brown except at base. Hind wing white suffused with brown ; a diffused curved brown antemedial line ; medial area and the inner area towards tornus whiter ; indistinct diffused sinuous brownish postmedial and subterminal lines ; a terminal series of slight dark points ; cilia pure white. Underside of fore wing suffused with brown except inner margin ; hind wing white slightly irrorated with brown and with traces of diffused antemedial, postmedial, and subterminal lines.

Hab. W. Turkestan, Turcomania, Merv in Coll. Püngeler. *Exp.* 22 millim.

5204. Eublemma suppuncta. (Plate CLIII. fig. 4.)

Thalpochares suppuncta, Staud. Iris, iv. p. 319 (1891); id. Cat. Lep. pal. p. 227.

Head, thorax, and abdomen almost pure white ; legs tinged with ochreous brown ; ventral surface of abdomen suffused with fuscous brown. Fore wing white, the terminal area faintly tinged with ochreous brown ; faint traces of a sinuous antemedial line ; black points at middle of cell and on discocellulars ; an oblique straight ochreous antemedial line ; postmedial line brownish ochreous, excurved below costa and at middle, angled inwards at discal fold and incurved below vein 4 ; subterminal line white defined on inner side by brownish, angled outwards at vein 7 and excurved at middle ; a slight oblique rufous shade from apex ; cilia white with a series of faint yellowish spots. Hind wing white tinged with pale fuscous especially on terminal area and with traces of a diffused subterminal band ; a terminal series of minute dark points ; cilia pure white. Underside of fore wing suffused with fuscous brown, the inner area whiter ; hind wing with the costal and terminal areas slightly irrorated with brown.

Hab. Asia Minor, Konia, 1 ♂, 1 ♀ ; Syria, Mardin. *Exp.* 24 millim.

*5205. Eublemma ephimera. (Plate CLIII. fig. 5.)

Thalpochares ephimera, Püng. ined.

♂. Head, thorax, and abdomen creamy white. Fore wing creamy white, the terminal area faintly tinged with rufous ; fain

traces of a curved rufous antemedial line; a rather diffused black discoidal spot; a faint oblique rufous line from lower angle of cell to inner margin; postmedial line rufous, slightly incurved from costa to below vein 7, then indistinct and oblique; subterminal line white, minutely dentate, with a series of striæ formed of black scales on its outer edge; cilia tinged with rufous and with slight rufous line at middle. Hind wing creamy white with faint diffused brownish subterminal line; cilia tinged with brown except at base. Underside of fore wing with the costal area tinged and irrorated with brown; hind wing with the costal area slightly irrorated with brown towards apex.

Hab. E. Turkestan, Ili, type † ♂ in Coll. Püngeler. *Exp.* 30 millim.

*5206. Eublemma jocularis.

Thalpochares jocularis, Christ. Hor. Soc. Ent. Ross. xii. p. 254, pl. 6. f. 26 (1877); id. Rom. Mém. ii. p. 72, pl. 3. f. 8; Staud. Cat. Lep. pal. p. 227.

Head and thorax yellowish white; antennæ brownish; abdomen white tinged with rufous except at base. Fore wing yellowish white, the termen faintly tinged with brown; very indistinct oblique brownish medial and postmedial lines; cilia pure white. Hind wing white; faint diffused brownish medial and postmedial lines; the termen tinged with brown; cilia pure white. Underside of fore wing suffused with reddish brown except inner area, traces of a curved diffused white subterminal band; hind wing white.

Hab. Armenia, Caucasus, Ordubad in Coll. Püngeler; Persia. *Exp.* 20 millim.

5207. Eublemma marmaropa. (Plate CLIII. fig. 6.)

Eublemma marmaropa, Meyr. Trans. Ent. Soc. 1902, p. 33.

♀. Head and thorax white faintly tinged with reddish ochreous; abdomen white. Fore wing white faintly tinged with olive-green; traces of an inwardly oblique waved ochreous antemedial line; a diffused oblique pale olive-green band from subcostal nervure near end of cell to inner margin before middle; faint traces of an oblique postmedial line; a diffused oblique rufous subterminal band from apex to inner margin with some olive-green on its inner edge and points formed of black scales on its outer edge; the costa towards apex and cilia pure white. Hind wing almost pure white.

Hab. Br. N. Guinea, Port Moresby, 1 ♀. *Exp.* 18 millim. Type † ♀ in Coll. Meyrick.

5208. Eublemma rufipuncta. (Plate CLIII. fig. 7.)

Eublemma rufipuncta, Turner, P. Linn. Soc. N. S. W. xxvii. p. 117 (1902).

♂. Head, thorax, and abdomen red-brown mixed with grey, the last with pale segmental lines. Fore wing grey thickly irrorated

with red-brown; a slight sinuous subbasal line from costa to submedian fold; antemedial and medial lines red-brown inwardly oblique, the latter defined by whitish on outer side and at discocellulars by yellowish; postmedial line red-brown, inwardly oblique and very slightly sinuous; subterminal line whitish, oblique; a fine dark terminal line; cilia with a slight whitish line at base. Hind wing grey thickly irrorated with red-brown, the postmedial and apical areas fuscous brown; two indistinct red-brown medial lines and a whitish subterminal line almost obsolete towards costa; the underside grey thickly irrorated with red-brown.

Hab. Queensland, Townsville (*Dodd*), 1 ♂. *Exp.* 18 millim.

5209. Eublemma pannonica.

Anthophila pannonica, Frr. Neue Beitr. iv. p. 67, pl. 330. ff. 3, 4 (1840); Staud. Cat. Lep. pal. p. 228.
Anthophila kindermannii, Boisd. Ind. & Gen. Meth. p. 174 (1840); Herr.-Schäff. Schmett. Eur., Noct. ff. 253–4.
Anthophila lenis, Ev. Faun. Lep. Volg. & Ur. p. 338 (1844).

Head and thorax yellowish white slightly tinged with rufous; abdomen white faintly tinged with brown and at base with yellow; pectus, legs and ventral surface of abdomen white tinged with brown. Fore wing with the basal half chrome-yellow, the terminal half purplish pink irrorated with white, the costa white with the costal edge brown towards base; antemedial black points in cell and on vein 1; a black point in middle of cell and indistinct blackish discoidal striga; a fine white medial line bounding the yellow area, excurved below costa, then oblique; an indistinct white postmedial line, oblique from costa to vein 7 and incurved below vein 4; a faint whitish subterminal line incurved below vein 3; cilia white at tips. Hind wing whitish suffused and irrorated with red-brown; cilia white at tips; the underside white irrorated with red-brown, a terminal series of minute black points.

Ab. 1. *lenis*. Much paler.

Hab. Hungary, Zeller, Frey, and Leech Colls.; S. Russia, Sarepta (*Christoph*); Armenia; Asia Minor, Pontus, Taurus; Syria, Leech Coll., Mardin; Persia; W. Siberia, Altai. *Exp.* 22–28 millim.

Larva. Kirby, Butt. & Moths Eur. p. 288; Hffm. Raup. p. 141, pl. 36. f. 11.

Brownish; 1st two pairs of prolegs absent. Food-plant: *Gnaphalium arenarium*. 5–6.

5210. Eublemma amasina.

Anthophila amasina, Ev. Bull. Mosc. 1842, iii. p. 555, & 1857, iv. p. 410; Herr.-Schäff. Eur Schmett., Noct. f. 280; Frr. Neue Beitr. pl. 437. f. 4; Staud. Cat. Lep. pal. p. 228.
Anthophila paradisea, Butl. Ill. Het. B. M. ii. p. 34, pl. 31. f. 4 (1878).

Head and thorax ochreous yellow; abdomen ochreous; palpi

and mid tibiæ pink. Fore wing ochreous yellow, the outer half of medial area and the postmedial area bright pink extending obliquely to apex, the costal edge pink towards base; medial line indistinct, whitish, angled outwards in discal and submedian folds; postmedial line very indistinct, dark, diffused, excurved from costa to vein 4, then oblique, a yellowish patch beyond it on costa; a subterminal series of white points except towards costa and two black points below the costa, excurved below vein 7 and at middle; cilia pink. Hind wing ochreous suffused with brown, the cilia pale ochreous faintly tinged with pink at tips; the underside ochreous white, the cilia tinged with pink.

Hab. S. Russia; Kirghistan; W. Turkestan, Fergana, Bokhara; E. Siberia, Ussuri; Japan; Kiushiu, 1 ♂, Yokohama (*Jones, Pryer*), 5 ♂, 2 ♀ type *paradisea*; Corea; W. China, Chang-yang (*Pratt*), 2 ♀. *Exp.* 24–32 millim.

5211. Eublemma pulchra. (Plate CLIII. fig. 8.)

Anthophila pulchra, Swinh. P. Z. S. 1886, p. 451; Hmpsn. Moths Ind. ii. p. 339.

Head and thorax yellowish white slightly tinged with rufous; the antennæ rufous; abdomen yellowish white tinged with brown. Fore wing yellowish white, the basal and terminal areas suffused with pink; the medial area with faint rufous streaks before the indistinct rufous postmedial line, which is excurved below costa and at middle incurved at discal fold and oblique below vein 4; short subterminal pure white streaks below veins 7, 6, 4, 3, 2, the termen white below apex, then yellowish; a fine brownish terminal line. Hind wing ochreous white suffused with brown especially on the veins and terminal area; a brown terminal line; the underside white with slight blackish discoidal lunule and terminal series of points.

Hab. Punjab, Kasauli, 1 ♂; Bombay, Mhow, 1 ♀ type. *Exp.* 24 millim.

5212. Eublemma delicata.

Thalpochares delicata, Feld. Reis. Nov. pl. 108. f. 13 (1874).

Head and thorax white mixed with some fiery red; palpi rufous except at tips; antennæ brown; pectus and legs suffused with brown, the fore tibiæ and the tarsi ringed with white; abdomen white suffused with brown. Fore wing with the basal area white; a sinuous fiery-red subbasal line from costa to submedian fold, a band of fiery-red and rufous suffusion beyond it, narrowing to inner margin; antemedial line slight, blackish defined on inner side by white, waved; the rest of wing rufous suffused in parts with fiery red and with some black irroration; an indistinct sinuous red medial line; a small black discoidal spot; postmedial

line black slightly defined on outer side by white, excurved from below costa to vein 4, then incurved and slightly sinuous, a white point beyond it on costa; subterminal line white defined on outer side by some black scales, angled outwards below vein 7 and excurved at middle; cilia white, fiery red at base towards apex and with patch of black scales at tornus. Hind wing white suffused with reddish brown especially on terminal half; two indistinct curved brown postmedial lines and a terminal line; cilia white tinged with brown at base; the underside white irrorated with brown and with traces of curved antemedial, medial, postmedial, and subterminal lines.

Ab. 1. Fore wing with less red.

Hab. Cape Colony, Deelfontein (*Sloggett*), 3 ♂, 1 ♀, Annshaw (*Miss F. Barrett*), 2 ♂, Rosmead (*Juby*), 1 ♂. *Exp.* 14–16 millim.

5213. Eublemma minima. (Plate CLIII. fig. 9.)

Micra minima, Guen. Noct. ii. p. 246 (1852).
Thalpochares pennula, Feld. Reis. Nov. pl. 108. f. 12 (1874).
Thalpochares carmelita, Morr. Proc. Ac. Nat. Sci. Phil. 1875, p. 434; Smith, Cat. Noct. N. Am. p. 313.
Toxophleps pallida, Schaus, Trans. Am. Ent. Soc. xxx. p. 160 (1904).

Head and thorax white; palpi and antennæ tinged with ochreous; abdomen white, dorsally tinged with ochreous. Fore wing white tinged with ochreous; the costa brownish towards base; an indistinct diffused brownish antemedial mark on costa; an oblique brownish medial band, diffused on inner side and slightly sinuous on outer; two black discoidal points; postmedial line white, excurved below costa and at middle, the area beyond it with a white point on costa; subterminal line white expanding into a patch at costa with a dark point on it, excurved below vein 7 and at middle and with some black points on its outer edge and more prominent small wedge-shaped spot at submedian fold; a fine olive terminal line; cilia white tinged with ochreous. Hind wing white, the terminal area slightly tinged with brown; a fine dark terminal line; cilia ochraceous white; the underside with the costal area slightly irrorated with ochreous, faint traces of a diffused subterminal line, a terminal series of slight dark points.

Ab. 1. *pallida*. Fore wing more uniformly tinged with greyish.

Hab. U.S.A. (*Doubleday*), 1 ♂, Texas, 1 ♂, Mississippi, California (*Walsingham*), 1 ♂; St. Thomas, 1 ♂; Brazil, São Paulo (*D. Jones*), 2 ♂, Organ Mts., Tijuca (*Wagner*), 1 ♂; Paraguay, Sapucay (*Foster*), 1 ♀; Argentina, Gran Chaco, Florenzia (*Wagner*), 1 ♀, Goya (*Perrins*), 1 ♀; Cape Colony, Cape Town (*Meade-Waldo*). 1 ♂, 1 ♀. *Exp.* 14–18 millim. Type† ♀ *pennula* in Coll. Rothschild.

5214. Eublemma scitula.

Erastria scitula, Rmbr. Ann. Soc. Ent. Fr. 1833, p. 26, pl. ii. f. 16; Dup. Lép. Fr., Suppl. iii. p. 567, pl. 47. f. 4; Herr.-Schäff. Eur. Schmett., Noct. f. 251; Mill. Rev. d'Ent. 1884, pl. 1. ff. 1–4; Roths. Nov. Zool. xii. p. 25, pl. iv. f. 29; Staud. Cat. Lep. pal. p. 230.
Nola exasperata, Led. Verh. zool.-bot. Ges. Wien, 1855, p. 183, pl. 5. f. 11.
Agrophila gibbosa, Snell. Tijd. v. Ent. xv. p. 50, pl. 4. ff. 9, 10 (1872).
Erastria futilis, Swinh. P. Z. S. 1884, p. 517, pl. 47. f. 8; Hampsn. Moths Ind. ii. p. 340.
Eulocastra cretacea, Hmpsn. Ill. Het. B. M. ix. p. 96, pl. 162. f. 17 (1893); id. Moths Ind. ii. p. 341.

Head and tegulæ reddish brown mixed with some white, the latter with white medial band, the tarsi brown ringed with white; abdomen white dorsally tinged with ochreous except at base and extremity. Fore wing pure white; the basal area with a few brownish striæ; a slight brownish subbasal point below costa; a slight dark antemedial line excurved below costa and cell; medial area with dark striæ especially on outer half; an indistinct sinuous medial line; the reniform small, defined by black, its outer edge irregular; postmedial line brown defined on outer side by white, excurved from below costa to vein 4, then incurved and waved; postmedial area suffused with grey, interrupted below vein 7 and with some white points on costa, subterminal line white, diffused, angled outwards below vein 7 and inwards at discal fold, excurved to tornen at middle, then incurved and slightly waved, a curved black mark on its outer edge below apex and some black points between vein 3 and tornus; a fine dark terminal line becoming rufous and somewhat punctiform towards apex; cilia white mixed with brown especially on apical half and with slight dark line towards tips. Hind wing white, the terminal area suffused with brown; an indistinct irregular white subterminal line; a fine dark terminal line; cilia white; the underside white with black points on tornen below veins 7 and 6.

Ab. 1. *futilis*. Fore wing brownish grey.

Hab. S. France, Leech Coll.; Spain, Catalonia; Corsica; Italy (*Leach*), Capri (*C. S. Browne*); Sicily; Dalmatia; Algeria; Gold Coast, Accra (*Sir G. Carter*), 2 ♂, 1 ♀; Br. C. Africa, Likoma (*de Jersey*) 1 ♀, L. Nyasa (*de Jersey*), 1 ♀; Transvaal, Pretoria (*Janse*), 2 ♂, Johannesburg (*Cooke*), 1 ♀; Basutoland, Masite (*Crawshay*), 1 ♀; Cape Colony, Deelfontein (*Shepstone*), 1 ♀, Capetown (*Lounsbury*), 1 ♀; Sind, Karáchi (*Swinhoe*), 1 ♀, type *futilis*; Madras, Cooty (*Campbell*), 1 ♀, Bangalore (*Watson*), 1 ♀, Coimbatore, (*Walhouse*), 1 ♀; Ceylon, Pundaloya (*Green*, *Mackwood*), 2 ♀, type *cretacea*. *Exp.* 16–20 millim.

Larva. Kirby, Butt. & Moths Eur. p. 288; Hffm. Raup. p. 143.

Hump-backed; green or pinkish; the three anterior pairs of prolegs absent. Feeds on the eggs of *Coccidæ* on Fig-trees, Oleanders and Yuccas, covering itself with their scales; at the Cape it preys on *Lecanium hesperidum*.

5215. Eublemma leucota, n. sp. (Plate CLIII. fig. 10.)

♀. Head and thorax white, the latter slightly tinged with ochreous; palpi, antennæ, and legs tinged with ochreous; abdomen white dorsally tinged with ochreous. Fore wing white, the terminal area suffused with brownish ochreous; some brownish irroration on basal half of costa; a somewhat oblique diffused brownish ochreous medial band with a black spot on it in discal fold, its outer edge slightly incurved below the cell; some brownish points on costa towards apex; subterminal line indistinct, white, excurved below vein 7 and at middle and to tornus, black points on its outer edge below costa and at discal and submedian folds; a small rufous patch at apex. Hind wing white, the terminal area slightly tinged with brownish; the underside with the costal area and terminal area to vein 2 slightly irrorated with brown.

Hab. Persian Gulf, Bander Abbas (*James*), 1 ♀ type. *Exp.* 16 millim.

5216. Eublemma therma, n. sp. (Plate CLIII. fig. 11.)

Head and thorax bright rufous; antennæ brown; tibiæ tinged with brown, the tarsi fuscous ringed with white; abdomen brownish suffused with rufous at base, the ventral surface whitish. Fore wing bright rufous, the outer half of medial area brown irrorated with grey; a slight whitish subbasal line from costa to submedian fold; antemedial line whitish, waved; a black point in middle of cell and two discoidal points; medial line white, waved; postmedial line white, excurved below costa and at middle, angled inwards in discal fold, incurved below vein 4 and slightly excurved above inner margin, some white points beyond it on costa; subterminal line very near termen, grey, excurved below vein 7 and at middle, some slight black points on its outer edge; cilia whitish tinged with rufous. Hind wing grey suffused with brown, the cilia somewhat paler with a faint dark line near base; the underside whitish suffused and irrorated with brown, a fine dark terminal line.

Ab. 1. Fore wing ochreous slightly suffused with rufous.

Ab. 2. Fore wing greyish suffused with fuscous brown.

Hab. Br. E. Africa, Eb Urru (*Betton*), 1 ♂, 2 ♀ type; Transvaal (*Pead*), 1 ♀, White R. (*Cooke*), 1 ♀, Tweefontein (*Janse*), 1 ♀, Pretoria (*Janse*), 2 ♀; Natal, Estcourt (*Hutchinson*), 1 ♂; Cape Colony, Grahamstown, 1 ♀. *Exp.* 16–18 millim.

5217. Eublemma respersa.

Noctua respersa, Hübn. Beitr. ii. i. p. 14, pl. 2. f. H (1790); Staud. Cat. Lep. pal. p. 227.

Noctua amœna, Hübn. Eur. Schmett., Noct. f. 300 (1802); Dup. Lép. Fr., Suppl. iii. p. 584, pl. 48. f. 6.

Anthophila grata, Treit. Eur. Schmett. v. (3) p. 283 (1826).

Micra carthami, Herr.-Schäff. Eur. Schmett. ii. p. 438, Noct. f. 558 (1845).
Thalpochares bythinica, B.-Baker, Trans. Ent. Soc. 1888, p. 121.

Head, thorax, and abdomen white, the hinder part of thorax and abdomen faintly tinged with red-brown; the palpi, antennæ, and legs suffused with rufous. Fore wing white irrorated with pale red-brown; antemedial line slight, red-brown, waved, a black point on it in cell; medial line defined on inner side by rufous suffusion, excurved from costa to median nervure and in submedian fold and angled inwards below the cell and at vein 1; postmedial line brown defined on outer side by whitish and with some greyish suffusion before it, excurved below costa, incurved at discal fold, excurved at middle, then oblique sinuous; postmedial area greyish, rufous towards costa on which there are some white points; subterminal line white with series of slight black points on its outer edge, excurved below vein 7 and at middle; the terminal area tinged with grey with an oblique rufous patch at apex; cilia greyish with white lines at base and middle, the tips tinged with rufous. Hind wing white suffused with reddish brown; traces of a medial line on inner area and of two sinuous postmedial lines, the outer defined on outer side by white on inner area; cilia white mixed with reddish brown; the underside white irrorated with brown, two diffused curved postmedial lines and a terminal series of blackish points.

Ab. 1. *grata*, Treit. Smaller and whiter.

Ab. 2. *bythinica*. Fore wing irrorated with violaceous pink.

Hab. S. France; Austria, Zeller and Frey Colls.; Hungary, Frey and Leech Colls; Spain, Murcia; S. Russia, Sarepta, Zeller Coll.; Armenia; Asia Minor, Pontus, Bythinia, Lydia; Persia, 2 ♀, Leech Coll.; W. Turkestan, Turcomania, Sarawschan. *Exp.* 26–30 millim.

Larva. Kirby, Butt. & Moths Eur. p. 287; Hffm. Raup. p. 141, pl. 36. f. 10.

Pale grey with a pale dorsal line. Food-plant: *Onopordon acanthium*. 5–6.

5218. Eublemma grata.

Anthophila grata, Guen. Noct. ii. p. 251 (1852); Staud. Cat. Lep. pal. p. 226.
Anthophila albicans, Guen. Noct. ii. p. 251 (1852); Rmbr. Cat. Lép. S. And. pl. 10. f. 4.

Head, thorax, and abdomen white; palpi and antennæ red-brown; legs tinged with red-brown. Fore wing white, the costal edge red-brown on basal half; a black point in middle of cell; medial line defined by bright rufous suffusion on inner side, excurved from costa to median nervure, angled inwards below the cell, then again excurved; two slight discoidal points; postmedial line faint, brownish, excurved below costa and at middle, incurved at discal fold and oblique below vein 3; the postmedial area tinged with brown defining the subterminal line, which has a bright rufous

patch before it below costa extending beyond it obliquely to apex, the line excurved below costa and at middle and with some black points on its outer edge; the termen faintly tinged with brown; cilia white with some brownish at middle and reddish brown tips. Hind wing white faintly tinged with brown except towards base, a faint brown subterminal line and a fine red-brown terminal line; the underside white, the costal area and terminal area to vein 2 faintly tinged with ochreous and irrorated with brown, a terminal series of black points.

Hab. Spain, Andalusia, Leech Coll. *Exp.* 26 millim.

*5219. Eublemma siticuosa. (Plate CLIII. fig. 12.)

Thalpochares siticuosa, Led. Wien. Ent. Mon. ii. p. 145, pl. 3. f. 2 (1858); Staud. Cat. Lep. pal. p. 227.
Thalpochares albina, Staud. Iris, x. p. 293, pl. 4. f. 25 (1897).

♂. Head and thorax creamy white; palpi, antennæ, and legs tinged with rufous; abdomen white tinged with rufous except towards base. Fore wing creamy white; slight subbasal and antemedial brown points on costa; a narrow rufous medial band, excurved below costa and incurved below the cell, a slight black point before it in cell and another beyond it on discocellulars; subterminal line white with rufous spots before it below costa, at middle and above inner margin and black points beyond it below costa and at discal and submedian folds, excurved below costa and at middle and incurved at discal fold and below vein 3; the terminal area suffused with brown from apex to vein 4. Hind wing pure white with traces of a brownish line from lower angle of cell to inner margin and of a subterminal line from vein 4 to inner margin. Underside of fore wing with the costal half slightly tinged and irrorated with brown; hind wing with the costal area slightly irrorated with brown towards apex.

Ab. 1. *albina*. Fore wing pure white without the rufous spots before subterminal line.

Hab. Syria, Mardin; Palestine, Dead Sea in Coll. Püngeler. *Exp.* 20 millim.

5220. Eublemma albida.

Anthophila albida, Dup. Lép. Fr., Suppl. iv. p. 382, pl. 81. f. 1 (1842); Oberth. Ét. Ent. vi. p. 91, pl. 11. f. 15; Staud. Cat. Lep. pal. p. 227.
Thalpochares grattissima, Staud. Iris, iv. p. 317 (1891).
Thalpochares infuscata, Staud. Iris, iv. p. 317 (1891).
Thalpochares transmittens, Christ. Iris, vi. p. 93 (1893).

♂. Head, thorax, and abdomen white; antennæ rufous; fore tibiæ brownish ringed with white. Fore wing white slightly irrorated with brown, the costa brownish towards base; minute black points in middle of cell and on discocellulars; an oblique slightly sinuous red line from upper angle of cell to inner margin; subterminal line white defined on inner side by red and a few

black scales from vein 6 to inner margin and on outer by black scales from costa to discal fold and by a black point in submedian fold, excurved below vein 7 and at middle and angled inwards at discal and submedian folds; a red spot at apex; a slight brownish terminal line; cilia with some brownish irroration at tips. Hind wing pure white, the cilia with slight brownish irroration at tips.

Ab. 1. Fore wing yellowish white, the subterminal line only defined on inner side by rufous towards the oblique rufous bar from apex, cilia tipped with red except at apex and tornus; hind wing with diffused brown subterminal band.—Algeria, Teniet-el-Had in Coll. Püngeler.

Ab. 2. *transmittens*. Fore wing with the terminal area broadly greyish white.—Armenia.

Ab. 3. *infuscata*. Fore wing with a brownish postmedial band.—Syria.

Hab. Algeria, Hammam-es-Salhain (*Walsingham*), 1 ♂; Armenia; Kurdistan; Asia Minor, Pontus; Syria, Mardin. *Exp.* 22–30 millim.

5221. Eublemma chlorotica. (Plate CLIII. fig. 13.)

Thalpochares chlorotica, Led. Wien. Ent. Mon. ii. p. 144, pl. 3. f. 1 (1858); Staud. Cat. Lep. pal. p. 227.

♂. Head and thorax white tinged with olive-green; pectus, legs, and abdomen white faintly tinged with brown. Fore wing white suffused and irrorated with olive-green except at costa: faint traces of an antemedial line excurved below the cell: medial line defined on outer side by white, excurved to middle of discocellulars, then incurved and again slightly excurved below submedian fold; postmedial line faintly defined on outer side by white, angled outwards below costa, then oblique and almost straight; subterminal line white defined on outer side by faint dark points, excurved below costa where it is met by an oblique white streak from apex, then almost straight; cilia white at tips. Hind wing white suffused with pale purplish; a fine dark terminal line; cilia pure white; the underside ochreous white faintly irrorated with brown.

Hab. Armenia, 1 ♂, D'Emmich Coll.; Syria, Mardin, Baalbec (*Graves*), 1 ♂; Kurdistan; Persia; W. Turkestan, Turcomania. *Exp.* 28 millim.

5222. Eublemma viridis.

Thalpochares viridis, Staud. Stett. Ent. Zeit. 1888, p. 45; Alph. Rom. Mém. v. p. 184, pl. 8. f. 11; Staud. Cat. Lep. pal. p. 227.

♂. Head, thorax, and abdomen white, the legs and abdomen faintly tinged with brown. Fore wing white suffused and irrorated

with pale olive-green except at costa; a white medial band defined on inner side by rather darker green, oblique, straight, very slightly bent inwards to costa; subterminal line white, arising from apex, oblique to vein 6 and slightly excurved at middle; cilia with a fine white line at base and white tips. Hind wing white suffused with pale purplish brown; a faint white medial band; cilia white. Underside of fore wing suffused with brown; hind wing tinged and irrorated with brown, traces of a diffused subterminal band.

Hab. W. Turkestan, Turcomania, 1 ♂, Fergana, Sarawschan. *Exp.* 28 millim.

5223. Eublemma pura.

Noctua pura, Hübn. Eur. Schmett., Noct. f. 579 (1818); Dup. Lép. Fr., Suppl. iii. p. 559, pl. 47. f. 6; Rmbr. Cat. Lép. S. And. pl. 13. f. 6; Staud. Cat. Lep. pal. p. 229.

Head and thorax creamy white; palpi, antennæ, and legs rufous; abdomen white tinged with rufous. Fore wing creamy white; a black point in middle of cell; a black discoidal striga on the outer edge of a narrow rufous medial band which is slightly excurved below costa, then oblique; a narrow rufous terminal band with minute black points on its inner edge representing the subterminal line; cilia white tinged with rufous except at base. Hind wing pure white with a fine brown terminal line except towards tornus; the underside with the costa slightly tinged with ochreous.

Hab. S. France, Leech Coll.; Spain; Italy, Liguria, Pegli, Frey Coll. *Exp.* 18–22 millim.

5224. Eublemma pallidula.

Anthophila pallidula, Herr.-Schäff. Eur. Schmett. vi. p. 178, Noct. f. 641 (1851); Staud. Cat. Lep. pal. p. 229.
Thalpochares cypriaca, Staud. Hor. Ent. Soc. Ross. xiv. p. 413 (1878).
Thalpochares mardina, Staud. Cat. Lep. pal. p. 229 (1901).

♂. Head, thorax, and abdomen white faintly tinged with rufous; palpi, antennæ, and legs rufous. Fore wing white irrorated with rufous and some brown, the terminal area suffused with rufous and irrorated with brown; the costal edge brown towards base, ill-defined black points in cell towards extremity and on discocellulars; an ill-defined dark medial line, oblique from costa to vein 6 just beyond the cell, then inwardly oblique; an indistinct oblique blackish striga from apex with some whitish above it and faint punctiform subterminal line sometimes obsolete, the area beyond it somewhat darker; cilia white at base, then white irrorated with brown and with fine line near tips. Hind wing white tinged with rufous especially towards termen: cilia white tinged with rufous at tips; the underside white irrorated with rufous except the cell and inner area.

Ab. 1. *cypriaca*. Fore wing more ochreous tinged with rufous; hind wing tinged with ochreous.

Ab. 2. *mardina*. Much smaller, pale ochreous, the subterminal points almost or quite absent, the terminal line slight.

Hab. Armenia, Caucasus, 3 ♂, Leech and D'Emmich Colls.; Asia Minor, Pontus, Taurus; Cyprus; Syria, 3 ♂, Leech Coll., Mardin; W. Turkestan, Turcomania, Astrabad, 1 ♂. *Exp.* 18–26 millim.

5225. Eublemma suppura. (Plate CLIII. fig. 14.)

Thalpochares suppura, Staud. Iris, iv. p. 322 (1891); id. Cat. Lep. pal. p. 229.

♂. Head, thorax, and abdomen creamy white; palpi, antennæ, and legs tinged with rufous. Fore wing creamy white; black points in middle of cell and on discocellulars; a faint ochreous medial line excurved below costa then oblique; a subterminal series of black points formed of aggregated scales; cilia tinged with rufous except towards tornus. Hind wing creamy white, the cilia tinged with rufous except towards tornus. Underside of fore wing, and the hind wing except the cell and inner area suffused with rufous.

Hab. Kurdistan, Malatia; Asia Minor, Cilicia, Taurus, Ammanus Mts., 1 ♂; Syria, 2 ♂, Leech Coll., Antioch. *Exp.* 24 millim.

5226. Eublemma sarcosia, n. sp. (Plate CLIII. fig. 15.)

♀. Head, thorax, and abdomen white faintly tinged with rufous; pectus, femora, and ventral surface of abdomen pure white. Fore wing white tinged and irrorated with rufous; faint traces of a sinuous antemedial line, a medial line excurved below costa then oblique, and a curved postmedial line. Hind wing white tinged and irrorated with rufous; traces of diffused medial, postmedial, and subterminal lines; the underside white faintly tinged with rufous.

Hab. Madras, Horsleykonda (*Campbell*), 1 ♀ type. *Exp.* 24 millim.

5227. Eublemma lacteicosta, n. sp. (Plate CLIII. fig. 17.)

♂. Head and tegulæ rufous; thorax white in front, the hinder part and abdomen pale red-brown with a greyish tinge; pectus and ventral surface of abdomen whitish, the tarsi slightly ringed with whitish. Fore wing pale red-brown with a greyish tinge and darker irroration, the costal area creamy white; antemedial line brownish, sinuous, faint except on costal area; medial line brownish, oblique towards costa, then inwardly oblique and indistinct, with black point at costa; postmedial line brownish with black point at costa, oblique towards costa, then very indistinct and excurved; two black points on costa towards apex and a small oblique bar

from apex; a fine brown terminal line; cilia with a fine whitish line at base. Hind wing pale red-brown with a greyish tinge and some dark irroration on basal area; traces of an oblique medial line; cilia with a fine pale line at base; the underside white tinged with rufous and irrorated with black, some blackish points on termen towards apex.

Hab. Nigeria, Old Calabar, 1 ♂ type. *Exp.* 22 millim.

*5228. Eublemma deserti. (Plate CLIII. fig. 16.)

Thalpochares deserti, Roths. Ent. Zeit. Stuttgart, xxiii. p. 142 (1909).

♂. White; palpi pale brownish at sides; fore tibiæ and tarsi pale brownish in front. Fore wing faintly tinged with rufous before the erect rufous medial line, which is excurved at middle and incurved below costa and in submedian interspace; a faint rufous tinge on subterminal area and a few black scales below apex and at discal fold. Hind wing pure white.

Hab. S. Algeria, Mraier, type † ♂ in Coll. Rothschild. *Exp.* 12 millim.

5229. Eublemma purpurina.

Noctua purpurina, Schiff. Wien. Verz. p. 88 (1776); Fabr. Mant. Ins. ii. p. 167 (1787); Hübn. Beitr. Schmett. i. 2. p. 11, pl. 2, f. G. (1787); Esp. Schmett. iv. pl. 163. f. 4; Hübn. Eur. Schmett., Noct. f. 298; Dup. Lép. Fr. vii. pt. 1, p. 385, pl. 123. f. 7; Staud. Cat. Lep. pal. p. 228 (1901).
Thalpochares secunda, Staud. Cat. Lep. pal. p. 228 (1901).

Head and thorax yellowish white, the palpi, except at base, and antennæ reddish brown; pectus and legs suffused with brown, the fore coxæ and tibiæ tinged with pink; abdomen whitish suffused with brown except at base. Fore wing yellowish white suffused with bright pink except on basal area and on terminal area below apex and towards tornus, the postmedial area with deep pink streaks in the interspaces between veins 7 and 3; faint traces of a pink medial line, excurved from costa to lower angle of cell, then oblique; a rather indistinct deep pink postmedial line, bent outwards below costa and oblique below vein 4; subterminal line represented by minute dentate white marks from costa to vein 4 and a faint incurved whitish line below vein 3; a deep pink terminal line; cilia yellowish at base, pink at tips. Hind wing yellowish white suffused with brown; cilia yellowish white slightly mixed with brown and tinged with pink at tips; the underside whitish, the costal half irrorated with brown and the apical area tinged with pink.

Ab. 1. *secunda*. Fore wing paler with less pink suffusion; hind wing whitish in both sexes.

Hab. S. France, Sand Coll.; ? S.E. Germany; Austria, Leech and Crowley Colls.; Hungary, Zeller, Frey, and Leech Colls.; Algeria; S. Russia; Armenia; Asia Minor, Pontus, Taurus; Syria, Leech Coll.; W. Turkestan, Fergana, Bokhara, Sarawschan, Marghilan, 1 ♂. *Exp.* 24–34 millim.

Larva. Kirby, Butt. & Moths Eur. p. 288; Hffm. Raup. p. 142.

Grey-green, with two dark dorsal stripes and two dull coloured lateral stripes; two anterior pairs of prolegs absent. Food plant: *Cirsium arvense.* 5–9.

5230. Eublemma rosea.

Noctua rosea, Hübn. Beitr. Schmett. ii. 2, p. 50, pl. 3, f. R (1791); Staud. Cat. Lep. pal. p. 228.

Noctua rosina, Hübn. Eur. Schmett., Noct. fig. 299 (1802); Dup. Lép. Fr., Suppl. iv. p. 237, pl. 71. fig. 7; Herr.-Schäff. Eur. Schmett., Noct. f. 443.

Thalpochares schernhammeri, Rühl. Soc. Ent. v. p. 34 (1890).

Head, thorax, and abdomen pale ochreous, the thorax faintly tinged with pink; mid tibiæ suffused with pink. Fore wing purplish pink; a broad band of olive-yellow suffusion before the medial white line, which is very slightly excurved below costa, angled outwards at discal fold, inwards to median nervure at vein 2, and slightly inwards at vein 1; postmedial line deep crimson, strongly excurved below costa, then oblique and slightly sinuous on inner area, a whitish point beyond it on costa; an oblique olive-brown streak from apex to just beyond the curve of postmedial line which it then follows as a crimson shade, the brown streak interrupted by the subterminal line, which is whitish towards costa and angled outwards at vein 7, then crimson and slightly excurved; a fine crimson terminal line; cilia pinkish at base and yellowish at tips with a darker line at middle. Hind wing ochreous suffused with brown, the cilia ochreous white; the underside white, the costal area tinged with pink and with traces of a pink postmedial line from costa to discal fold.

Ab. 1. *schernhammeri.* Fore wing without any pink.

Hab. Austria, Zeller, Frey, and Leech Colls.; Switzerland, Leech Coll.; Dalmatia; S. Russia, Leech Coll., Urals, Orenburg; Armenia; Asia Minor, Pontus, Bithynia, Lydia, Taurus; W. Turkestan, Fergana, Issyk-Kul; ? W. Siberia; E. Turkestan, Ili. *Exp.* 20–28 millim.

Larva. Kirby, Butt. & Moths Eur. p. 288; Hffm. Raup. p. 142.

Rosy pink with some darker irroration; two whitish dorsal lines and a lateral whitish stripe. Feeds in a web on *Jurinea mollis.* 5.

5231. Eublemma parallela.

Anthophila parallela, Frr. Neue Beitr. iv. p. 123, pl. 360. f. 2 (1841); Dup. Lép. Fr., Suppl. iv. p. 86, pl. 57. f. 6; Herr.-Schäff. Eur. Schmett., Noct. f. 299; Staud. Cat. Lep. pal. p. 227.

Micra concinnula, Herr.-Schäff. Eur. Schmett. ii. p. 437, Noct. f. 256 (nec Boisd.).

Head, thorax, and abdomen white mixed with olive-green; pectus, legs, and ventral surface of abdomen whiter. Fore wing white suffused wtih olive-green; faint traces of a sinuous ante-

medial line with a black point on it in cell; medial line olive-green defined on outer side by white, diffused on inner side and with black discoidal striga on it, oblique from costa to above end of cell, then inwardly oblique and slightly sinuous; postmedial line very indistinct, oblique from costa to vein 6, then inwardly oblique; subterminal line white defined on inner side by olive-green suffusion and with a series of black points on its outer edge, angled outwards at vein 7, then oblique; an oblique rufous mark from apex; cilia white with an olive line at middle. Hind wing white suffused with reddish brown; traces of a whitish medial line and of a whitish bar above tornus; cilia white with a slight brownish line through them; the underside white sparsely irrorated with brown, a terminal series of slight brown lunules.

Ab. 1. Fore wing much darker and more suffused with brown.

Hab. S. Russia, Sarepta, Zeller, Frey, and Leech Colls.; Armenia; Kurdistan; Asia Minor, Pontus, Taurus, Amanus Mts., 2 ♀; Syria, 3 ♂, Leech Coll.; ? Persia. *Exp.* 22–30 millim.

5232. Eublemma pusilla.

Erastria pusilla, Ev. Bull. Mosc. 1837, vi. p. 50.
Anthophila concinnula, Boisd. Ind. Gen. Meth. p. 174 (1840); Frr. Neue Beitr. pl. 360. fig. 1; Herr.-Schäff. Eur. Schmett., Noct. f. 252; Staud. Cat. Lep. pal. p. 227.
Noctua proxima, Fisch. Bull. Mosc. 1840, i. p. 88.

Head white, the antennæ rufous; thorax white suffused with olive-green; abdomen white; pectus and legs white, the fore legs tinged with brown. Fore wing white suffused with olive-green; antemedial line slight, olive-green defined on inner side by white, angled outwards below costa and on median nervure and inwards in cell, then oblique, a minute black streak before it in the cell; medial line dark olive with olive-green suffusion before it and a white band beyond it; angled outwards beyond the cell, then oblique and slightly sinuous; postmedial line dark olive defined on outer side by white, oblique from below costa to vein 6, then inwardly oblique and slightly sinuous, a white point beyond it on costa; a white subterminal band with minute black points on its outer edge, slightly excurved below vein 7 and at middle; a fine olive-green terminal line, defined on iner side by white except at apex and tornus; cilia white at base, olive-green at tips. Hind wing white slightly tinged with olive-green; a white medial band, excurved below costa; traces of a white postmedial line and a faint white subterminal band except towards apex; cilia white; the underside white with olive-green medial and postmedial lines excurved at middle, and a terminal punctiform line.

Hab. S. Russia, Sarepta, Frey and Leech Colls.; W. Turkestan, Tarbagatai Mts.; W. Siberia, Altai Mts. *Exp* 18–20 millim.

*5233. Eublemma sphragidota. (Plate CLIII. fig. 18.)

Eublemma sphragidota, Turner, Pr. Linn. Soc. N. S. W. xxvii. p. 116 (1902).

♂. Grey-white; palpi, antennæ, and legs tinged with ochreous brown. Fore wing with sinuous blackish antemedial line angled inwards on vein 1, the area beyond it suffused with rufous to the medial line, which is oblique from costa to the large black discoidal spot, then inwardly oblique to inner margin; the postmedial line oblique and brown towards costa, then grey, angled inwards in discal fold and more strongly in submedian fold; a semicircular blackish mark on costa before apex; an indistinct, grey, minutely dentate subterminal line angled inwards in submedian fold; some slight black points on termen. Hind wing with traces of two waved grey postmedial lines.

Hab. Queensland, Townsville (*Dodd*), type † ♂ in Coll. Turner. *Exp.* 14 millim.

*5234. Eublemma subcinerea.

Thalpochares subcinerea, Snell. Tijd. v. Ent. xxiii. p. 65, pl. v. f. 10 (1880).

Eublemma iothicta, Meyr. Trans. Ent. Soc. 1902, p. 34.

♀. Head and tegulæ pale rufous; thorax and abdomen white slightly tinged with rufous. Fore wing creamy white irrorated with red-brown and dark brown; antemedial line dark, obliquely incurved from below costa to submedian fold and angled inwards on vein 1; a small diffused dark discoidal spot; medial line oblique from costa to vein 6 well beyond the cell, then inwardly oblique, the area beyond it whitish to the brown postmedial line, which is oblique from costa to vein 7, then minutely waved, slightly defined on outer side by whitish; a minutely dentate whitish subterminal line with series of small blackish spots on its outer edge; a slight brown terminal line. Hind wing creamy white tinged and irrorated with red-brown; an oblique rufous antemedial line with whitish band beyond it; a minutely waved dark postmedial line except on costal area; a minutely waved whitish subterminal line with series of blackish points on its outer edge; a slight brown terminal line; cilia yellowish white tinged with rufous at apex; the underside yellowish white slightly irrorated with brown.

Hab. Celebes; Br. N. Guinea, Port Moresly, type † ♀ *iothicta* in Coll. Meyrick. *Exp.* 18 millim.

*5235. Eublemma gayneri.

Mestleta gayneri, N. C. Roths. Nov. Zool. viii. p. 429 (1901); id. Nov. Zool. xii. pl. iv. f. 35.

♂. Head, thorax, and abdomen creamy white slightly tinged with rufous. Fore wing creamy white slightly tinged with rufous; a subbasal black point on costa; antemedial line rufous with

black point at costa, slightly excurved below costa and angled outwards in submedian fold; a black point in end of cell; medial line rufous with black point at costa, angled outwards at discal fold just beyond the cell, then oblique; postmedial line rufous with black point at costa, oblique to vein 7, then excurved and minutely waved to vein 2 where it is slightly angled inwards; an oblique rufous bar from apex with some slight subterminal black points below it; a fine rufous terminal line and pale line at base of cilia which are pale rufous. Hind wing creamy white faintly tinged with rufous; an oblique rufous antemedial line, a slight rufous postmedial line oblique from costa to vein 3, then incurved; a fine rufous terminal line; the underside white with minute black discoidal point and curved postmedial line formed of dark scales.

Hab. Egypt, Assouan, type † ♂ in Coll. Rothschild. *Exp.* 18 millim.

*5236. Eublemma beraudi. (Plate CLIII. fig. 19.)

Eublemma beraudi, de Joan. Bull. Soc. Ent. Fr. 1909, p. 168.

♂. Head white mixed with rufous; tegulæ rufous; thorax white in front, rufous behind; pectus and legs white, the tarsi rufous ringed with white; abdomen pale rufous with white segmental lines, the ventral surface white. Fore wing white almost entirely suffused with pinkish red, the costal edge white towards base; subbasal line represented by a black point on costa; antemedial line with black point on costa, then rufous, incurved from subcostal nervure to submedian fold; black points at middle of cell and on discocellulars, the latter placed on a brownish spot; medial line rufous defined by white on outer side and with black point at costa, very oblique from costa to beyond discoidal spot, then inwardly oblique; postmedial line slight, rufous defined by whitish on outer side, very oblique from costa to vein 7, incurved at discal fold, oblique and waved below vein 5, some rufous striæ beyond it from costa; traces of a dentate subterminal line with two black points beyond it below a red apical spot with white striga beyond it on termen. Hind wing whitish suffused with pinkish red except on costa; an oblique red antemedial line slightly defined by white on outer side; traces of a curved postmedial line defined by whitish on outer side; a slight brown terminal line; the underside white slightly irrorated with brown, a slight discoidal point, traces of a curved postmedial line, and terminal series of points.

Hab. Egypt, Alexandria, type † ♂ in Coll. Joannis. *Exp.* 18 millim.

*5237. Eublemma teilhardi. (Plate CLIII. fig. 20.)

Eublemma teilhardi, de Joan. Bull. Soc. Ent. Fr. 1909, p. 170.

♀. Head white mixed with pale brown; tegulæ pale fawn

brown; thorax purplish pink; pectus and legs white, the tarsi rufous ringed with white; abdomen pale fawn, the base of dorsum and anal tuft purplish pink, the ventral surface white. Fore wing purplish pink, the costal edge white to beyond middle; subbasal line represented by a black point on costa; antemedial line with black point on costa, then indistinct, red; a small lilacine grey discoidal spot defined by black except above; medial line black and oblique from costa to just beyond discoidal spot, then indistinct, red and inwardly oblique; postmedial line with oblique black striga from costa, then excurved, red and hardly traceable, some crimson points beyond it on costa; traces of a subterminal series of black points; cilia deep crimson. Hind wing purplish pink, the costal area whitish; a crimson terminal line; cilia deep crimson with a paler line at base; the underside white, the terminal area tinged with rufous, a black discoidal point.

Hab. Egypt, Cairo, type † ♀ in Coll. Joannis. *Exp.* 18 millim.

Larva. On *Acacia nilotica*.

5238. Eublemma trilinea. (Plate CLIII. fig. 21.)

Eublemma trilinea, de Joan. Bull. Soc. Ent. Fr. 1909, p. 167.

Head and tegulæ red-brown; thorax grey-white in front, red-brown behind; pectus and legs pale rufous, the tarsi ringed with white; abdomen red-brown, greyish at base. Fore wing ochreous almost entirely suffused and irrorated with purplish red, the base greyish; antemedial line double, red-brown filled in with ochreous, incurved in cell and slightly angled outwards in submedian fold; medial and postmedial lines red-brown defined on outer side by ochreous, excurved from costa to vein 6, then obliquely incurved; an oblique blackish subapical mark with two black points on it, followed by a subterminal series of slight dark points; cilia deep red with fine ochreous line at base. Hind wing whitish suffused with red-brown except on costal area; cilia deep red with fine ochreous line at base; the underside white slightly irrorated with brown, the termen suffused with red, a dark discoidal point, traces of postmedial and subterminal lines, a terminal series of black points.

Hab. C. China, Zi-ka-Wey, 1 ♂, 1 ♀. *Exp.* 20 millim. Type † in Coll. Joannis.

5239. Eublemma curvata. (Plate CLIII. fig. 22.)

Madopa curvata, Lucas, Trans. Nat. Hist. Soc. Queensl. i. p. 115 (1894).

♂. Head and tegulæ reddish brown with some white on frons and at base of tegulæ; thorax white; abdomen white suffused with grey, the ventral surface white; legs mostly brown, the tarsi ringed with white. Fore wing white slightly irrorated with brown; no postmedial line and finely pencilled with brown except on costal and postmedial areas; antemedial line with oblique black striga

from costa, then very indistinct, sinuous; a blackish discoidal spot with an oblique brown striga above it from costa; postmedial line brown, strongly excurved below costa, then very oblique; the costa beyond it with alternating red-brown and white points; an oblique brown shade from apex with two black points on it and a minute dentate red-brown mark; a dark brown terminal line except towards apex and tornus; cilia dark brown with a white line at base. Hind wing white, the basal and terminal areas finely pencilled with brown; a fine brown medial line except on costal area; a minutely dentate postmedial line excurved at middle; a black point above tornus and a fine brown terminal line; cilia dark brown with a white line at base; the underside white tinged and irrorated with brown, two minute black points on termen towards apex.

Ab. 1. Fore wing with the medial area except towards costa and hind wing with the basal half except costa and inner margin suffused with chocolate-brown.

Hab. New Guinea (*Mathew*), 1 ♂; Queensland, Townsville (*Dodd*), 3 ♂. *Exp.* 20–24 millim.

5240. **Eublemma ochreola**, n. sp. (Plate CLIII. fig. 23.)

♂. Head and tegulæ rufous; thorax and abdomen pale ochreous slightly tinged with rufous. Fore wing pale ochreous tinged with rufous and sparsely irrorated with black; a blackish discoidal point; medial line diffused, brownish, indistinct especially towards costa, oblique from costa to beyond upper angle of cell, then inwardly oblique; postmedial line faint, minutely waved, excurved below costa, then oblique; a subterminal series of small black spots; a fine brown terminal line; cilia ochreous at base, brown at tips. Hind wing ochreous, the terminal area tinged with rufous; diffused oblique brownish medial and postmedial lines; a subterminal series of small black spots with a faint brownish shade before them; a fine brown terminal line; cilia ochreous at base, brown at tips; the underside ochreous tinged with rufous and irrorated with black, a faint diffused postmedial line and terminal series of black points.

Hab. Hainan, Five-fingered Mts. (*Whitehead*), 1 ♂ type. *Exp.* 24 millim.

5241. **Eublemma brachygonia**, n. sp. (Plate CLIII. fig. 24.)

Head and tegulæ rufous; thorax and abdomen whitish tinged with rufous, the pectus and ventral surface of abdomen white. Fore wing white thickly irrorated with pale rufous, the terminal area suffused with pale rufous; traces of a sinuous rufous antemedial line with blackish point at costa; minute black points in middle of cell and on discocellulars; medial line rufous defined on outer side by white, acutely angled outwards to well beyond the

cell, then oblique; postmedial line with black point at costa, then rufous slightly defined on outer side by white, oblique to vein 7, then indistinct, minutely waved and inwardly oblique, the costa beyond it with alternating rufous and white points; traces of a minutely waved whitish subterminal line with two black points on its outer edge below costa; a small red spot at apex and fine rufous terminal line; cilia pale red with white line at base. Hind wing white suffused with rufous; a rufous medial line defined on outer side by white from below costa to inner margin; a punctiform rufous postmedial line slightly defined on outer side by white, not extending to costa, and traces of a minutely waved whitish subterminal line; a rufous terminal line; cilia pale red with a white line at base; the underside white with terminal series of black points from apex to vein 2.

Hab. S. Leone (*Clements*), 1 ♀; N. Nigeria, Borgu, Yelwa Lake (*Migeod*), 1 ♀; Ceylon, Colombo (*Alston*), 1 ♂ type. *Exp.* 18 millim.

5242. Eublemma gratiosa.

Anthophila gratiosa, Ev. Bull. Mosc. 1854, iii. p. 192, & 1856, i. pl. 2. f. 10; Alph. Hor. Soc. Ent. Ross. xvii. p. 91, pl. 3. f. 62; Staud. Cat. Lep. pal. p. 228.

Thalpochares epigramma, Staud. Stett. Ent. Zeit. 1889, p. 53; id. Cat. Lep. pal. p. 228.

Head and tegulæ pale rufous; thorax white tinged with rufous; abdomen ochreous white. Fore wing whitish suffused with rufous, the basal and costal areas rather paler, the costal edge brown towards base; antemedial line slight, red-brown with minute spot at costa, strongly incurved in cell and excurved below it; a black point in middle of cell; a slight discoidal bar; medial line red-brown defined on outer side by ochreous, oblique from costa to vein 6 where it is angled outwards to beyond the cell, then inwardly oblique and slightly incurved below vein 5, the area beyond it slightly irrorated with fuscous except towards costa; postmedial line defined on outer side by whitish, red-brown and oblique towards costa, then fuscous, minutely crenulate, inwardly oblique and slightly incurved at submedian fold, some whitish points beyond it on costa; a subterminal series of minute black spots formed of aggregated black scales and slightly defined on inner side by whitish; a small rufous apical spot and pale rufous terminal line; cilia with fine whitish lines at base and near tips. Hind wing ochreous white tinged with rufous; a narrow whitish medial band obsolete on costal area; two indistinct dark postmedial lines excurved below costa; a fine rufous terminal line; cilia with fine white lines at base and near tips; the underside white, the costal and terminal areas irrorated with red-brown.

Hab. Khirgistan; E. Turkestan, Thian Shan Mts., 1 ♀. *Exp.* 24 millim.

5243. Eublemma radda. (Plate CLIII. fig. 25.)

Eublemma radda, Swinh. A. M. N. H. (7) vii. p. 472 (1901).

Head, thorax, and abdomen purplish red mixed some whitish. Fore wing whitish almost entirely suffused and irrorated with purplish red; traces of a sinuous rufous antemedial line; a dark point in middle of cell and small brownish discoidal spot; medial line indistinct, rufous, oblique from below costa to vein 6 far beyond the cell, then minutely waved and inwardly oblique; postmedial line excurved below costa, then dentate and produced to slight dark points on the veins, oblique below vein 4, some pale points beyond it on costa; subterminal line whitish, very indistinct, waved; a fine brownish terminal line. Hind wing whitish almost entirely suffused and irrorated with purplish red: a dark discoidal striga; an indistinct double oblique diffused rufous medial line; traces of a dentate postmedial line and of a waved whitish subterminal line; a fine rufous terminal line; the underside whitish tinged with rufous, a minute blackish discoidal lunule and traces of two curved rufous postmedial lines.

Hab. Borneo, Sarawak, 1 ♂, 1 ♀ type, Kuching (*Shelford*), 1 ♀. *Exp.* 24 millim.

5244. Eublemma abrupta.

Mestleta abrupta, Wlk. xxxiii. 830 (1865); Moore, Lep. Ceyl. iii. p. 208, pl. 174, ff. 2, 2*a*; Hmpsn. Moths Ind. ii. p. 342.
Thalpochares wallengreni, Snell. Tijd. v. Ent. xxiii. p. 64, pl. v. f. 6 (1880).
Eublemma lurida, Pag. Zoologica, xii, p. 84, pl. ii. f. 43 (1900).

Head and tegulæ rufous; thorax ochreous white tinged with rufous; abdomen greyish suffused with red-brown at base and with fuscous towards extremity; tarsi red-brown ringed with white. Fore wing ochreous suffused with rufous and irrorated with fuscous: a minute subbasal black point in cell; antemedial line indistinct, blackish, minutely dentate towards costa and angled outwards below the cell; a black point in middle of cell and slight discoidal lunule; medial line dark brown, very acutely angled outwards below costa to near postmedial line where it is met by an oblique black shade from apex, then very oblique and double, the outer line blackish; postmedial line fine, black, strongly excurved below costa, then oblique and dentate; an ochreous spot below costa towards apex with a small triangular spot on costa beyond it; a minute dentate subterminal white mark below apex, then a series of black points with an oblique streak from the point in submedian fold to tornus; a fine red-brown terminal line; cilia red-brown except at base. Hind wing ochreous suffused with rufous; a double oblique medial line, the inner line red-brown, the outer fuscous; postmedial line blackish, dentate and produced to black points on the veins, excurved at middle; a subterminal series of slight black points and a blackish patch

above tornus; a fine brown terminal line; cilia deep rufous except at base; the underside greyish irrorated with fuscous, the basal and postmedial areas tinged with red, a black discoidal point, two curved medial lines, an indistinct dentate postmedial line, produced to black points on the veins, and a terminal series of points.

Ab. 1. Thorax, abdomen, and wings grey-brown without rufous tinge.

Hab. Bengal, 1 ♀; Bombay, Poona; Madras, Nilgiris, 1 ♀; Ceylon (*Templeton*, *Mackwood*), 2 ♂, 2 ♀; Borneo, Sarawak (*Wallace*), 1 ♂; Celebes; New Britain; Queensland, Armidale (*Dodd*), 1 ♀, Townsville (*Dodd*), 2 ♂, 1 ♀. *Exp.* 22 millim. Type † in Mus. Oxon.

Larva. Reddish with black streaks and lateral dots and yellow transverse bands; paired oblique white bands on 9th and 10th somites; the 5th, 6th, 7th, and 11th somites with dorsal prominences, the 3rd, 4th and 5th each with four spatulate dorsal filaments; 1st two pairs of prolegs absent. Food-plant; *Ficus parasiticus*, pupating in a small cocoon attached to a leaf (*Thwaites*).

5245. Eublemma versicolora.

Autoba versicolor, Wlk. Journ. Linn. Soc., Zool. vii. p. 58 (1864).
Thalpochares rubricosa, Snell, Tidj. v. Ent. xxiii. p. 64, pl. v. f. 9 (1880).
Mestleta angulifera, Moore, Lep. Atk. p. 179 (1882); id. Lep. Ceyl. iii. p. 208, pl. 175. ff. 2, 2 *a*; Hmpsn. Moths Ind. ii. p. 343.

Head and tegulæ rufous; thorax and abdomen ochreous white tinged with rufous; tarsi rufous ringed with white. Fore wing ochreous white tinged and irrorated with rufous; slight dark subbasal points on costa and in cell; antemedial line with oblique blackish striga from costa, then hardly traceable, incurved in cell where there is a blackish point on it, and angled outwards below the cell; a blackish discoidal point; medial line red-brown, very strongly angled outwards below costa to near postmedial line, then very oblique; postmedial line red-brown, angled outwards below costa where it is met by a blackish shade from apex, then indistinct, minutely dentate, and incurved below vein 4, the costa beyond it red-brown with some pale points on it; subterminal line formed by minute dentate black marks; a fine rufous terminal line; cilia rufous with a pale line at base. Hind wing ochreous white suffused and irrorated with rufous; a rufous medial line not extending to costa; an indistinct minutely dentate postmedial line from discal fold to inner margin; a subterminal series of minute dentate black marks; a fine rufous terminal line; cilia rufous with a pale line at base; the underside ochreous white, the terminal area slightly irrorated with rufous.

Ab. 1. Paler; wings ochreous white slightly irrorated with rufous.

Ab. 2. Thorax, abdomen, and wings suffused with purplish pink.

Ab. 3. Thorax, abdomen, and wings purplish grey without any red tinge.

Hab. Mashonaland, Salisbury (*Marshall*), 1 ♀ ; Bengal, Calcutta, 1 ♂ type *angulifera* ; Bombay, Kanara, Karwar (*T. R. Bell*), 2 ♂, 1 ♀; Madras, Nilgiris, 1 ♂, 1 ♀; Ceylon (*Lindesay*), 2 ♂, Puttalam (*Pole*), 1 ♀; Borneo, Sarawak, type † in Mus. Oxon.; Philippines, Manilla (*Barnes*), 1 ♂ ; Celebes ; Queensland, Townsville (*Dodd*), 2 ♂, Brisbane (*Turner*, *Arnold*), 2 ♂, 1 ♀. *Exp.* 18–28 millim.

Larva. Ochreous brown ; 1st two pairs of prolegs absent ; pupates in a dark brown cocoon.

5246. **Eublemma aurantiaca**, n. sp. (Plate CLIII. fig. 26.)

♂. Head and tegulæ rufous ; thorax and abdomen ochreous white suffused with orange-red, the last with pale lines on terminal segments ; pectus and ventral surface of abdomen whitish ; tarsi rufous with pale rings. Fore wing orange-red ; minute subbasal black points on costa and in cell ; antemedial line with oblique black striga from costa with a point below it, a point in cell nearer the base and an oblique rufous line from cell to inner margin ; black points in middle of cell and on discocellulars ; medial line red-brown with a black point on costa, very acutely angled outwards below costa to the postmedial line, then very oblique ; postmedial line angled outwards below costa where it is met by a slight oblique dark streak from apex, then represented by a series of blackish points on slight whitish marks on the veins, some white points beyond it on costa ; a subterminal series of black points, slightly defined on inner side by white towards costa ; a fine rufous terminal line ; cilia deep rufous except at base. Hind wing orange-red ; a rufous medial line not extending to costa ; an indistinct punctiform rufous postmedial line and a subterminal series of slight black points ; a fine rufous terminal line ; cilia deep rufous except at tips ; the underside ochreous white tinged with rufous, a minute black discoidal point, a postmedial series of minute black points and a terminal series from apex to vein 2.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♂ type. *Exp.* 18 millim.

5247. **Eublemma crassiuscula.**

Thermesia crassiuscula, Wlk. Journ. Linn. Soc., Zool. vii. p. 186 (1864).
Mesleta duplexa, Moore, P. Z. S. 1877, p. 611, pl. 60. f. 5 ; Hmpsn. Moths Ind. ii. p. 343.

Head and tegulæ creamy white, the palpi and antennæ brownish ; thorax and base of abdomen orange-red, the terminal part of abdomen red-brown with pale segmental lines ; pectus, legs, and ventral surface of abdomen ochreous white irrorated with brown, the tarsi brown ringed with white. Fore wing orange irrorated with red, the terminal area suffused with red-brown, the

costa whitish; antemedial line indistinct, with black point on costa, excurved below costa, then sinuous; a slight brownish discoidal mark; medial line dark brown with black point at costa, fine and very acutely angled outwards below costa to just before the postmedial line, where it is met by an oblique brown streak from apex, then strong and very oblique, some greyish beyond it; postmedial line brown defined on outer side by greyish, angled outwards below costa, then oblique and minutely waved, some pale points beyond it on costa; a black point below apex and a rather diffused punctiform dark subterminal line, angled inwards in submedian fold; cilia rufous with a fine pale line at base. Hind wing orange suffused with red, the base and costal area whitish; diffused dark medial and postmedial lines from discal fold to inner margin with greyish between them; a subterminal series of minute black points; cilia deep rufous; the underside ochreous white, the costal and terminal areas sparsely irrorated with brown, traces of a medial line on inner area, a faint postmedial line bent inwards to costa and a terminal series of black points from apex to vein 2.

Hab. Andamans, 1 ♂ type *duplexa*; Selangor, Kuala Lumpur (*Durham*), 1 ♀; Borneo, Sarawak (*Wallace*), 2 ♂, Kuching (*Shelford*), 1 ♀. *Exp.* 18–22 millim. Type † ♀ in Mus. Oxon.

5248. Eublemma cinnamomea.

Trothisa cinnamomea, Herr.-Schäff. Corresp.-blatt. zool.-min. Ver. Regensb. xxii. p. 155 (1868).
Trothisa margaritæ, Berg, Ann. Soc. Argent. xiv. p. 285 (1882).
Xanthoptera laphyra, Druce, P. Z. S. 1890, p. 517; id. Biol. Centr.-Am., Het. ii. p. 498, pl. 96. f. 2.
Eublemma rosescens, Hmpsn. Trans. Ent. Soc. 1898, p. 248, pl. 17. f. 9.

Head and tegulæ yellowish white slightly mixed with red; palpi brownish except at tips; antennæ brownish; thorax rufous tinged with purplish pink; abdomen yellowish white, the terminal segments suffused with rufous, pectus and legs white, the fore tibiæ and tarsi brownish ringed with white, ventral surface of abdomen yellowish tinged with red. Fore wing bright rufous suffused with purplish pink except on terminal area, the costal area yellowish white slightly irrorated with red to beyond middle; traces of an incurved antemedial line; medial line deep red defined on outer side by yellowish, angled outwards below costa, then obliquely incurved; postmedial line brown, oblique from costa to vein 7, then indistinct and incurved, an oblique brown shade beyond it from costa with some white points on the costa; an indistinct dark subterminal line with blackish points on it above and below discal fold, arising from apex, excurved at middle and bent outwards to tornus; a deep red terminal line; cilia brownish, red at apex. Hind wing white, the terminal area yellowish tinged with red; a fine red terminal line; cilia white

tinged with red at base; the underside yellowish white, the apical area tinged with red, a terminal series of minute black points from apex to vein 2.

Ab. 1. Fore wing ochreous suffused and irrorated with rufous and slightly with pink on basal area.

Ab. 2. *margaritæ*. Abdomen irrorated with fuscous leaving whitish segmental lines; fore wing irrorated with fuscous.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♀, Vera Cruz (*H. H. Smith*), 1 ♂ type; Guatemala (*Rodriguez*), 1 ♂, Godman-Salvin Coll.; Bahamas (*Bonhote*), 1 ♀; Jamaica, Runaway Bay (*Walsingham*), 1 ♂; Cuba; Haiti (*Tweedie*), 1 ♂; Sta. Lucia, 1 ♀; St. Vincent (*H. H. Smith*), 1 ♂; Grenada (*H. H. Smith*), 3 ♀ type *rosescens*; Trinidad (*Kaye*), 1 ♀; Venezuela, 1 ♂; Br. Guiana, Potaro R. (*Kaye*), 1 ♂, 2 ♀, Bartica (*Kaye*), 1 ♂, 1 ♀; Surinam; Brazil, Organ Mts., Tijuca (*Wagner*), 2 ♀; Uruguay. *Exp.* 18–28 millim.

5249. Eublemma obliqualis. (Plate CLIII. fig. 27.)

Phalæna obliqualis, Fabr. Ent. Syst. 3. 2. p. 224 (1794).
Anthophila flammicincta, Wlk. xxxiii. 801 (1865); Smith, Cat. Noct. N. Am. p. 313.
Trotnisa pallescens, Herr.-Schäff. Corresp.-blatt. zool.-min. Ver. Regensb. xxii. p. 154 (1868).
Micra stalii, Wllgrn. Œfv. Vet.-Akad. Förh. 1871, p. 916.
Tarache patula, Morr. Proc. Ac. Nat. Sci. Phil. 1875, p. 69.
Tarache patruelis, Grote, Can. Ent. viii. p. 27 (1876).
Xanthoptera laphyra, Druce, Biol. Centr.-Am., Het. ii. p. 498 (part.).

Head and tegulæ white; thorax and abdomen white tinged with ochreous. Fore wing white tinged with yellow; medial line acutely angled outwards below costa where it is met by an oblique white line from apex to middle of inner margin with a band of rufous suffusion before it and rufous suffusion beyond it, the terminal area and cilia fiery red; an indistinct postmedial line, angled outwards below costa then oblique; traces of a subterminal series of black points. Hind wing yellowish white, the termen tinged with fiery red; cilia white faintly tinged with red at base; the underside white, the apical area tinged with red.

Ab. 1. *patruelis*. Fore wing with indistinct oblique antemedial line.

Ab. 2. *patula*. Fore wing paler, the terminal area less strongly suffused with red.

Ab. 3. Fore wing yellower with less rufous suffusion, the markings indistinct, the subterminal series of black points prominent.

Ab. 4. Fore wing nearly uniformly suffused with brownish ochreous.

Hab. U.S.A., Alabama, 1 ♀, type *patruelis* Texas, Bastrop Co., 2 ♂, Tiger Hill, 1 ♀; Mexico, Jalapa (*Trujillo*), 1 ♀, Godman-Salvin Coll.; Panama, La Chorrera (*Dolby-Tyler*), 1 ♂; Bahamas.

Andros (*Bonhote*), 2 ♂, 1 ♀; Jamaica, Runaway Bay (*Walsingham*), 1 ♂; Cuba, Santiago (*Schaus*), 3 ♂; Haiti (*Tweedie*), 1 ♂, 1 ♀ type *flammicincta*; St. Kitts (*Nicholl*), 4 ♂, 2 ♀; St. Bartholomew; Barbados (*Frampton*), 1 ♀; St. Vincent (*H. H. Smith*), 2 ♂; Grenada (*H. H. Smith*), 2 ♂; Venezuela (*Dyson*), 1 ♂; Fernando Noronha (*Ridley*), 2 ♂, 2 ♀; Peru, Callao (*J. J. Walker*), 2 ♂. *Exp.* 20–24 millim.

5250. **Eublemma leucograpta**, n. sp. (Plate CLIII. fig. 28.)

♂. Head and thorax white; palpi with the second joint fuscous at sides, the third joint yellowish; head with brownish bars above frons and on vertex; antennæ blackish; patagia with some rufous towards tips; legs tinged with brown; abdomen whitish, dorsally suffused with rufous. Fore wing rufous, the costal area white with the costal edge blackish towards base and slight rufous and black antemedial and medial striæ from costa; a black point in cell before middle and a discoidal point; two oblique whitish bands from cell to inner margin before middle and a medial band acutely angled outwards below costa, then oblique; postmedial line white, minutely dentate, angled outwards below costa, then very oblique to middle of inner margin; subterminal line white, minutely dentate, with two slight black streaks beyond it below apex; a slight waved white line just before termen; cilia rufous and whitish with a few fuscous scales. Hind wing rufous; the base white; an oblique white antemedial band with the black discoidal point on it; two oblique white medial lines and minutely waved postmedial and subterminal lines, the last with minute black points on its outer edge from apex to discal fold; cilia white tinged with rufous and slightly mixed with fuscous; the underside white.

Hab. Solomons, Rendova I. (*Meek*), 1 ♂ type. *Exp.* 18 millim.

5251. **Eublemma bilineata.** (Plate CLIII. fig. 29.)

Eublemma bilineata, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 206 (1902).

Head, tegulæ, and legs orange-yellow; thorax white; abdomen white tinged with rufous. Fore wing grey, thickly and minutely irrorated with white except on basal area, the costal area white to beyond middle, the costal edge yellow at base; a black point on middle of costa; two postmedial lines, black at costa, then brown, oblique from costa to vein 6, then inwardly oblique; some orange-yellow on costa towards apex and a quadrate black-brown spot at apex defined by white; a fine dark terminal line; cilia brown with fine yellowish lines at base and near tips. Hind wing whitish suffused with brown; a fine dark postmedial line and fine dark terminal line; cilia with a slight whitish line at base; the underside suffused with reddish brown except on inner area.

Hab. Punjab, Simla (*Harford*), 1 ♂ type, Kulu (*Pilcher*), 2 ♂, 2 ♀, Kangra Valley (*Dudgeon*), 1 ♂. *Exp.* 18–20 millim.

5252. Eublemma daphœna, n. sp. (Plate CLIII. fig. 30.)

♂. Head and tegulæ bright rufous: thorax and abdomen pale brownish grey. Fore wing whitish tinged with red-brown and irrorated with dark brown, the apical area more rufous, the costal edge rufous; antemedial line dark brown, angled outwards below costa, then oblique and very slightly angled at submedian fold; a brown discoidal striga; medial line brown strongly angled outwards beyond upper angle of cell, then oblique; postmedial line brown, angled outwards at vein 6 and slightly at vein 4, then slightly incurved; the costa towards apex blood-red with some yellow points on it and an oblique black striga from apex; traces of a minutely waved whitish subterminal line with faint blackish points on its outer edge; a fine brown terminal line; cilia rufous, deep blood-red at tips. Hind wing whitish tinged with brown; traces of fine sinuous brown postmedial and subterminal lines except towards costa; a fine brown terminal line; cilia whitish tinged with blood-red. Underside of fore wing bluish white with some dark irroration on costal and terminal areas and the disk suffused with brown, two dark brown postmedial striæ from costa with some points beyond them; hind wing white, the costal area tinged with ochreous and irrorated with brown, a fine minutely waved postmedial line and terminal series of black points from apex to vein 3.

Hab. Transvaal, White R. (*Cooke*), 1 ♂ type. *Exp.* 22 millim.

5253. Eublemma polygramma.

Anthophila polygramma, Dup. Lép. Fr., Suppl. iii. p. 519, pl. 44. f. 3 (1836); Frr. Neue Beitr. pl. 437. f. 2; Herr.-Schaff. Eur. Schmett., Noct. f. 257; Rmbr, Cat. Lép. S. And. pl. 15. f. 5; Staud. Cat. Lep. pal. p. 227.
Anthophila argillacea, Ev. Faun. Vo'g. & Ur. p. 339 (1844).
Thalpochares nuda, Christ. Stett. Ent. Zeit. 1862, p. 221.
Thalpochares pudorina, Staud. Stett. Ent. Zeit. 1889, p. 53.
Thalpochares violetta, Staud. Stett. Ent. Zeit. 1889, p. 53.

Head, thorax, and abdomen grey-brown, the last with pale segmental lines; pectus and base of abdomen on underside white. Fore wing grey-brown with a slight rufous tinge, thickly and minutely irrorated with white; antemedial line indistinct, dark, sinuous, strongly excurved in submedian interspace; slight dark points in middle of cell and on discocellulars; medial line white with a fine brown line on its inner edge, angled outwards at vein 6 to well beyond the cell, then oblique and slightly incurved; postmedial line brown defined on inner side by white, excurved below costa, then obliquely incurved; the costa towards apex rufous with a whitish point; subterminal line whitish, angled inwards below costa, then very minutely dentate; a fine rufous terminal line and white line at base of cilia. Hind wing greyish suffused with reddish brown, the costal and terminal areas greyer; a white medial line from discal fold to inner margin, and indistinct postmedial brown line slightly defined on outer side by whitish except on costal area; a

brown terminal line and fine whitish line at base of cilia; the underside grey-white irrorated with red-brown except on inner area.

Ab. 1. *pudorina*. Fore wing whitish tinged with flesh-pink, an oblique black subapical bar; hind wing whitish, the terminal area tinged with pink.

Ab. 2. *violetta*. Fore wing with the medial line less strongly angled outwards beyond the cell.

Hab. S. France, Sand Coll.; Switzerland, Valais; Spain, Castile, Andalusia, Murcia: Italy; Istria; Dalmatia; Algeria; S. Russia, Sarepta (*Christoph*); Armenia; Asia Minor, Pontus, Bithynia, Taurus; Syria, Mardin, Antioch: W. Turkestan, Turcomania, Fergana, Sarawschan. *Exp.* 20 millim.

5254. **Eublemma roseocincta**, n. sp. (Plate CLIII. fig. 31.)

♂. Head, thorax, and abdomen white tinged with rufous; palpi and antennæ rufous. Fore wing pale olive-green, the costal area white narrowing to a point beyond middle, the subcostal and terminal areas purplish pink; postmedial line double, with two oblique rufous striæ from costa, then very indistinct and olive-green, the outer line with minute white points on it from below costa to vein 4, then very oblique to inner margin before middle; some minute white points on costa towards apex, two black subterminal points below costa and an oblique white streak from apex; cilia olive-brown with a pinkish white line at base. Hind wing white, the inner area and termen faintly tinged with red; the underside faintly tinged with rufous, some minute black points on termen.

Hab. Br. E. Africa, Tana R. (*Crawshay*), 1 ♂ type, Kibauni (*Crawshay*), 1 ♂. *Exp.* 16 millim.

*5255. **Eublemma heterogramma**. (Plate CLIII. fig. 32.)

Anthophila heterogramma, Mab. C. R. Ent. Soc. Belg. xxv. p. 61 (1881).

♀. Head and thorax white; palpi fulvous yellow, brown at tips; antennæ brown except at base: pectus and legs tinged with ochreous: abdomen white dorsally suffused with brown. Fore wing silvery white; a small black spot at apex; a fine red-brown line from costa towards apex, strongly angled outwards below apex, then very oblique to inner margin near base; a fine red-brown line arising below apex from the angle of the other line, obliquely curved to inner margin beyond middle; the termen with fine black line at apex, then a series of minute points. Hind wing white tinged with brownish ochreous. Underside white; fore wing tinged with ochreous brown especially on costal and terminal areas: hind wing faintly tinged with ochreous.

Hab. Congo, Landona, type † ♀ in Coll. Mabille. *Exp.* 32 millim.

5256. Eublemma ragusana.

Anthophila ragusana, Frr. Neue Beitr. v. p. 92, pl. 437. f. 1 (1844); Staud. Cat. Lep. pal. p. 227.
Anthophila virginea, Guen. Noct. ii. p. 248 (1852); Hmpsn. Moths Ind. ii. p. 339.
Anthophila cinerina, Ghil. Mem. R. Accad. d. Sci. di Torino (2) xiv. p. 214 (1854); Staud. Cat. Lep. pal. p. 227.
Thalpochares psilogramma, Led. Verh. zool.-bot. Ges. Wien, 1855, p. 207, pl. 2. f. 14.
Hypena quinquelinealis, Moore, P. Z. S. 1877, p. 612.
Thalpochares dividens, Lucas, Pr. R. Soc. Queensl. viii. p. 87 (1892).
Eublemma polygramma, Hmpsn. Moths Ind. ii. p. 339 (nec Dup.).

Head and tegulæ pale rufous; thorax and abdomen white tinged with grey. Fore wing white suffused and irrorated with grey-brown, the costal area rather whiter; an indistinct very oblique brown line from subcostal nervure towards end of cell to median nervure where it is bent outwards, then very oblique to inner margin near base; two postmedial lines bent outwards to below apex, then very oblique to inner margin at and beyond middle, the inner defined by white on outer side, the outer on both sides; a subterminal series of minute black points with a fine oblique white line on the inner side from below apex to inner margin, the two points below costa stronger; a fine brown terminal line; cilia brown with a fine white line at base. Hind wing white faintly tinged with ochreous brown; traces of a postmedial line and a fine dark terminal line. Underside of both wings with the costal area tinged with crimson; hind wing with terminal series of black points.

Ab. 1. Fore wing with the basal half whiter, a strong oblique brown shade arising from apex and thence running on inner side of the inner postmedial line to inner margin; hind wing whiter.—Gold Coast.

Ab. 2. *virginea*. Fore wing suffused with pink instead of brown, the lines indistinct, the subterminal line hardly traceable, a red spot at apex beyond the two black points.—Java.

Hab. Dalmatia; Gold Coast, Accra (*Sir G. Carter*), 3 ♂; N. Nigeria, Borgu, Yelwa Lake (*Migeod*), 1 ♀; Br. E. Africa, Kikuyu (*Crawshay*), 3 ♂, Nairobi (*Ford*), 1 ♂; Uganda, Entebbe (*Minchin*), 1 ♂; Mashonaland (*Dobbie*), 1 ♂; Transvaal, Pretoria (*Janse*), 2 ♀; Natal, Tugela R., Bonds Drift (*Reynolds*), 1 ♂; Seychelles, Coetivy (*Fletcher*), 1 ♀; Syria, Beyrut (*Lederer*), 1 ♀; Punjab, Dharmsála (*Hocking*), 1 ♀; Bhután (*Dudgeon*), 1 ♀; Bengal, 2 ♂, 2 ♀; Madras, Cuddapah (*Campbell*), 1 ♀; Burma, Rangoon (*Noble*), 1 ♂; Andamans (*Rogers*), 4 ♂, 4 ♀, type *quinquelinealis*; Singapore, 1 ♂; Java (*Horsfield*), 1 ♀ type *virginea*; New Guinea (*Mathew*), 1 ♂; Queensland, Rockhampton, 1 ♂, Brisbane (*Turner*), 2 ♂. *Exp.* 18–22 millim.

5257. Eublemma rubiginea. (Plate CLIV. fig. 1.)

Eublemma rubiginea, Hmpsn. Trans. Ent. Soc. 1895, p. 300; id. Moths Ind. iv. p. 516.

♂. Head and tegulæ deep red-brown; thorax rufous with some white in front; abdomen red-brown with some rufous at base; pectus, base of legs, and ventral surface of abdomen whitish. Fore wing red-brown mixed with some ochreous white especially on basal area, the costal edge dark brown; antemedial line ochreous white, inwardly oblique and slightly sinuous; a pale discoidal striga with two slight blackish spots before it; postmedial line ochreous white with a fine brown and rufous line on its inner edge, strongly bent outwards below costa, then oblique, some white points beyond it on costa; subterminal line slight, ochreous white, angled outwards at middle and inwards at discal and submedian folds; a terminal series of black striæ; cilia with a rufous line at base. Hind wing red-brown slightly mixed with ochreous white; a pale discoidal striga; postmedial line ochreous white with a fine rufous line on its inner edge, oblique, straight; traces of a pale waved subterminal line; a terminal series of slight blackish striæ; cilia with a rufous line at base: the underside whitish suffused and irrorated with red-brown, an oblique dark postmedial line.

Hab. Bhután (*Dudgeon*), 1 ♂ type. *Exp.* 20 millim

5258. Eublemma castanea, n. sp. (Plate CLIV. fig. 2.)

♂. Head, thorax, and abdomen deep rufous; prothorax with a pure white band; pectus and ventral surface of abdomen ochreous white. Fore wing deep rufous, the costa narrowly white to postmedial line, the costal edge rufous towards base; antemedial line white, inwardly oblique and slightly angled outwards in submedian fold; a white discoidal bar; postmedial line white, oblique from costa to below vein 7, then inwardly oblique and almost straight, some white points beyond it on costa; the interspaces of terminal area with very slight whitish streaks; cilia with a fine white line at base. Hind wing deep rufous; a slight whitish discoidal striga; postmedial line white, slightly incurved; a terminal series of minute white points and fine white line at base of cilia; the underside whitish suffused with rufous, postmedial line faint, brownish very slightly defined on outer side by whitish.

Hab. Borneo, Sandakan (*Pryer*), 1 ♂ type. *Exp.* 22 millim.

*5259. Eublemma aplecta. (Plate CLIV. fig. 3.)

Eublemma aplecta, Turner, P. Linn. Soc. N. S. W. xxxiv. p. 353 (1909).

♀. Head, thorax, and abdomen grey-white pencilled with brown; palpi at sides and antennæ red-brown; tegulæ bright rufous at tips. Fore wing grey thickly irrorated with red-brown, the costal edge rufous; indistinct curved red-brown ante and postmedial lines;

a short oblique blackish streak from apex and subterminal series of slight black points. Hind wing grey thickly irrorated with red-brown; the underside whitish slightly irrorated with red-brown.

Hab. Queensland, Gympie, type † ♀ in Coll. Turner. *Exp.* 24 millim.

5260. Eublemma obscura.

Selenis obscura, Moore, Lep. Atk. p. 178, pl. 6. f. 10 (1892); Hmpsn. Moths Ind. ii. p. 342.

♀. Head and tegulæ dark red-brown; thorax whitish in front, rufous behind; abdomen dark brown with some rufous at base, the terminal segments with pale lines; pectus and ventral surface of abdomen whitish tinged with brown. Fore wing red-brown, the costal area yellowish to antemedial line and beyond the postmedial line; antemedial line indistinct, sinuous; a slight yellowish discoidal striga; postmedial line brown defined on outer side by yellowish and by white at costa, strongly bent outwards below costa, then oblique and minutely waved; the costal edge towards apex black with some white points on it, the postmedial area yellowish towards inner margin; subterminal line slight, yellowish, angled outwards at vein 7 and excurved at middle; a fine blackish terminal line; cilia with a yellow line at base. Hind wing dark reddish brown, the costal area whitish, the postmedial area more ochreous; traces of a dark medial line except on costal area; cilia with a yellow line at base; the underside ochreous white irrorated with brown, a diffused medial line and a terminal series of dark striæ.

Hab. Sikhim, 1 ♀ type. *Exp.* 24 millim.

5261. Eublemma tristalis.

Meranda tristalis, Leech, Entom. xxii. p. 65, pl. 2. f. 6 (1889).

Head and tegulæ deep chocolate-brown, thorax whitish tinged with rufous; legs and abdomen red-brown. Fore wing brownish white suffused with red-brown except on costal and basal areas, the costal edge black towards base; antemedial line with slight black mark at costa, then indistinct, incurved below the cell; a slight brown discoidal striga with pale striga on its outer edge; postmedial line brown, oblique from costa to vein 6, then inwardly oblique and sinuous, the costa beyond it with white points with black streaks between them; subterminal line pale slightly defined on inner side by brown, angled outwards at veins 7 and 4, then incurved and ending at tornus; an oblique white bar from apex; a terminal series of black points; a fine whitish line at base of cilia. Hind wing greyish brown; a sinuous dark medial line defined on outer side by whitish; a fine black terminal line; cilia with a fine whitish line at base; the underside whitish suffused with brown.

Hab. Japan, Satsuma (*Leech*), 1 ♂ type, Kiushiu, 1 ♀. *Exp.* 20 millim.

5262. Eublemma reticulata. (Plate CLIV. fig. 4.)

Eublemma reticulata, Hmpsn. Moths Ind. iv. p. 516 (1896).

♀. Head and tegulæ reddish brown mixed with some grey; thorax grey suffused with purple; abdomen whitish irrorated with brown and fuscous. Fore wing reddish brown suffused with purplish grey, the medial area purplish red-brown suffused with black towards costa; antemedial line straight, brown defined on inner side by grey, angled outwards below costa, then oblique; a rather diffused black discoidal spot; postmedial line grey-white, very oblique from costa to vein 6 and incurved below vein 4, some pale points with slight black streaks between them beyond it on costa; a subterminal series of small black spots, the spots towards costa placed on a white apical patch emitting a dentate mark to postmedial line above vein 6: cilia purplish red-brown. Hind wing with the basal area greyish, the medial area purplish red-brown, the terminal area paler red-brown suffused with purplish grey; an indistinct blackish medial line on inner area; a slight grey postmedial line excurved at middle; a subterminal series of minute black points; cilia purplish red-brown; the underside pale grey tinged with brown and irrorated with dark brown.

Hab. Ceylon, Puttalam (*Pole*), 1 ♀ type, Uva (*Alston*), 1 ♀. *Exp.* 20 millim.

5263. Eublemma rubra. (Plate CLIV. fig. 5.)

Eublemma rubra, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 207 (1902).

Head and tegulæ pale rufous; thorax and abdomen white suffused with rufous, the latter with white segmental lines; pectus and ventral surface of abdomen white. Fore wing rufous mixed with some ochreous, the costal area white irrorated with rufous, the costal edge bright rufous; antemedial line white, oblique from costa to subcostal nervure, then inwardly oblique; a white discoidal striga with slight oblique rufous striga above it from costa: postmedial line white, oblique from costa to vein 6, excurved to vein 4, then oblique and slightly sinuous, white streaks beyond it above and below vein 6 to the subterminal series of small black spots which are defined by white towards costa and slightly excurved at middle; an oblique white streak from apex; cilia with a fine white line at base. Hind wing rufous slightly mixed with ochreous, the basal area white irrorated with rufous and bounded by an indistinct oblique rufous medial line; postmedial line white, excurved at middle; a subterminal series of black points; a fine white line at base of cilia; the underside white slightly tinged and irrorated with rufous; a terminal series of black points.

Hab. Sikhim, 1800′ (*Dudgeon*), 1 ♂ type; Singapore, 1 ♀; Java (*Horsfield*), 1 ♂; Queensland, Townsville (*Dodd*), 1 ♀. *Exp.* 16–18 millim.

5264. Eublemma dubia.

Matæomera dubia, Butl. Trans. Ent. Soc. 1886, p. 418, pl. x. f. 2.
Thalpochares cocciphaga, Meyr. P. Linn. Soc. N. S. W. (2) i. p. 1037 (1887).

Head and tegulæ red-brown; thorax and abdomen whitish suffused with red-brown. Fore wing greyish almost entirely suffused and irrorated with red-brown, the postmedial area whiter; antemedial line indistinct, faintly defined on inner side by grey, excurved from costa to submedian fold, then incurved; a faint dark discoidal spot; postmedial line indistinct, slightly defined on outer side by white, excurved from costa to vein 4 and slightly angled inwards in submedian fold, a paler patch beyond it on costa; an indistinct minutely waved whitish subterminal line with a series of minute black points on its outer edge, somewhat excurved at middle and bent outwards to tornus; a fine brown terminal line; cilia darker with a slight whitish line at base. Hind wing grey-white tinged and irrorated with red-brown; traces of a minutely waved whitish subterminal line with some minute black points on its outer edge; cilia darker; the underside grey irrorated with brown except on inner area.

Ab. 1. Fore wing with the medial area darker, the subterminal black spots distinct.

Ab. 2. Fore wing wholly suffused with grey-white with some fuscous irroration.

Ab. 3. Fore wing almost uniformly suffused with white.

Hab. Queensland, Gayndah, 1 ♀, Peak Downs, 1 ♂ type, Duaringa, 1 ♂, 2 ♀, Cairns (*Turner*), 1 ♂, Brisbane (*Turner*), 1 ♂, 1 ♀, Moreton Bay (*Diggles*), 1 ♂; W. Australia, Sherlock R. (*Clements*), 1 ♂; N. S. Wales, Sydney (*Raynor*, *Lyell*, *Arnold*), 11 ♂, 12 ♀. *Exp.* 16–26 millim.

Larva. Oliff, Agr. Gaz. N. S. W. iv. p. 683, plate, & Tepper, Pr. R. Soc. S. Austr. xvii. p. 129.

Whitish with black head, stout; two 1st pairs of prolegs absent. Feeds on the Coccids *Lecanium oleæ*, *hesperidum* and *testudo*, and *Eriococcus eucalypti*.

5265. Eublemma costimacula.

Anthophila costimacula, Saalm. Lep. Madag. p. 365, f. 114 (1891).
Eublemma plagiopera, Hmpsn. Ann. S. Afr. Mus. ii. p. 420 (1902).

Head and tegulæ white mixed with some pale brown; antennæ brown; thorax rufous, white in front and with some pale brown on shoulders; abdomen white suffused with pale brown and irrorated with black leaving white segmental lines; pectus, legs, and ventral surface of abdomen white irrorated with black, the tarsi pale brown ringed with white. Fore wing reddish brown slightly mixed with white; a white streak in cell to the antemedial line, the area above it irrorated with black; antemedial line white, bent inwards to costa and inner margin; a slight blackish discoidal striga with

some white on its outer edge; postmedial line white, forking at costa, oblique and strong to discal fold, then fine, oblique to subterminal line at vein 3, then almost obsolete, somewhat angled inwards at submedian fold where there is a blackish spot beyond it, a blackish patch beyond it on costal area with some white points on costa and an oblique streak below costa; subterminal line white, forking at costa, then with some black scales on it; emitting a streak to postmedial line above vein 6, angled inwards to postmedial line at discal fold, then excurved and with two black points on its outer edge, ending on the postmedial line at vein 3; cilia with a fine pale line at base and greyish tips. Hind wing whitish tinged with reddish brown, especially in female, except on costal area, the termen suffused with dark brown, a black patch on inner margin just beyond middle; cilia brownish white with a fine pale line at base; the underside white slightly tinged with brown and irrorated with black except on basal and inner areas, a terminal series of black points.

Hab. Uganda (*Gaudry*), 1 ♀, Entebbe (*Minchin*), 1 ♂; Natal, 2 ♀; Cape Colony, Adnshaw (*Miss F. Barrett*), 1 ♂ type *plagiopera*, Queenstown (*Helliers*), 1 ♀; Madagascar. *Exp.* 20–22 millim.

Cocoon formed of exuviæ of Coccids, in damaged Cacao pods.

5266. Eublemma ignefusa, n. sp. (Plate CLIV. fig. 6.)

♂. Head, thorax, and abdomen whitish suffused with rufous, the last with some black irroration towards extremity. Fore wing whitish suffused with rufous and irrorated with a few black scales; some fiery red on base of inner margin; antemedial line very ill-defined fiery red, bent inwards below subcostal nervure, then oblique to inner margin; a fiery red discoidal spot with its lower extremity produced as a patch to postmedial line, which is indistinctly double, minutely dentate, excurved to vein 2 and angled inwards in submedian fold; a large apical fiery red patch; a terminal series of fiery red points. Hind wing whitish suffused with rufous and irrorated with a few black scales; a fiery red discoidal spot with its lower extremity produced: traces of a pale minutely waved postmedial line: a terminal series of minute black points; the underside whitish tinged with red and striated with fuscous.

Hab. Singapore (*Ridley*), 1 ♂ type. *Exp.* 16 millim.

5267. Eublemma communimacula.

Noctua communimacula, Schiff. Wien Verz. p. 85 (1776); Hübn. Beitr. Schmett. I. i. p. 23, pl. 3. f. O (1786); Esp. Schmett. iii. pl. 93. f. 1, Hübn. Eur. Schmett., Noct. f. 349; Dup. Lép. Fr. viii. pt. i. p. 383, pl. 123. f. 6; Mill. Icones. iii. pl. 139. ff. 4, 5; Staud. Cat. Lep. pal. p. 228.

Head and thorax pale flesh-pink; abdomen white tinged with

pink. Fore wing pale flesh-pink; a large conical rufous patch on medial area from cell to inner margin defined by white; some white points on postmedial part of costa; an indistinct whitish subterminal line incurved below costa, excurved at middle and bent outwards to tornus; cilia rufous with a fine pale line at base. Hind wing yellowish white, the terminal area tinged with pink; a fine rufous terminal line; the underside white, the costal area suffused with pink.

Hab. Austria, Zeller and Leech Colls.; Hungary, Frey and Leech Colls.; ? C. Italy; Dalmatia; Greece; Armenia; Asia Minor, Pontus, Taurus; Syria, Mardin. *Exp.* 22–30 millim.

Larva. Kirby, Butt. & Moths Eur. p. 288; Hffm. Raup. p. 141.

Yellowish white; short and thick with small head and rudimentary thoracic plate; two 1st pairs of prolegs absent. Lives in cases on Coccids on Sloe and Peach.

*5268. Eublemma rhodocraspis. (Plate CLIV. fig. 7.)

Eublemma rhodocraspis, Druce, A. M. N. H. (8) iii. p. 462 (1909).

♀. Head and thorax creamy white; antennæ rufous; abdomen ochreous white. Fore wing creamy white; slight rufous subbasal and antemedial points on costa; a diffused rufous bar from middle of costa; a black discoidal striga; a round rufous spot beyond lower angle of cell with curved pinkish band from it to inner margin just before tornus; the apical area and termen tinged with rufous; a faint whitish subterminal line defined on outer side by a few black scales, angled outwards below vein 7, excurved at middle and ending on termen above tornus; a fine rufous terminal line; cilia tinged with pink. Hind wing creamy white to beyond middle with some black scales on discocellulars; the terminal area pale pink with some blood-red on its inner edge which is straight; a series of black points formed of rather scattered scales from costa towards apex to tornus towards which they are placed on slight whitish spots; a fine rufous terminal line; cilia whitish tinged with pink; the underside white slightly irrorated with black and with a faint rufous subterminal shade, a terminal series of small black lunules.

Hab. Borneo, Elopura (*Pryer*), type † ♀ in Coll. Druce. *Exp.* 26 millim.

5269. Eublemma carneola, n. sp. (Plate CLIV. fig. 8.)

♂. Head red-brown; thorax creamy white, the legs suffused with brown; abdomen creamy white suffused with red-brown and irrorated with black except at base. Fore wing creamy white tinged with red-brown, the area from end of cell to subterminal line pale reddish brown with a purplish tinge except towards costa; a small antemedial red-brown spot on costa and traces of a sinuous line from cell to inner margin; a black point in middle of cell and

small discoidal spot; a small medial red-brown spot on costa; an indistinct, very oblique, postmedial red-brown streak from costa; subterminal line white defined on inner side by red-brown, arising at vein 7 below which it is excurved, slightly angled inwards at discal fold, then excurved to near termen, some red-brown beyond it on costa. Hind wing with the basal area creamy white tinged with red-brown; an indistinct oblique slightly sinuous red-brown medial line from discal fold to inner margin, the area beyond it pale red-brown except at inner margin, becoming purplish red towards the white subterminal line, which is somewhat dentate and defined on outer side by black irroration towards costa and below the discal fold excurved to near termen; the underside white tinged with red-brown and irrorated with a few black scales on costal area.

Hab. Borneo, Sadong (*Shelford*), 1 ♂ type, Santobong (*Shelford*), 1 ♂. *Exp.* 30 millim.

5270. Eublemma amabilis.

Eublemma amabilis, Moore, Lep. Ceyl. iii. p. 54, pl. 150. f. 12 (1884); Hmpsn. Moths Ind. ii. p. 339.

Head rufous; thorax and abdomen creamy white, the latter slightly tinged with rufous. Fore wing creamy white, the area from the medial to subterminal lines pale rufous except towards costa; antemedial line represented by a few dark scales from middle of cell to inner margin; medial line indistinct, rufous, diffused, angled outwards below costa, then oblique; an oblique whitish postmedial bar from costa with a slight rufous mark before it on costa and patch beyond it; subterminal line white defined on inner side by deep rufous suffusion, angled inwards below costa and at discal fold, excurved below vein 7, angled outwards at middle to near termen, then strongly incurved and ending at tornus; terminal area tinged with rufous except towards apex; a fine rufous terminal line; cilia pale rufous with a slight whitish line at base. Hind wing creamy white suffused with pinkish rufous except on basal and costal areas; an indistinct oblique diffused rufous medial line with a few black scales on it; subterminal line white defined on inner side by deep rufous suffusion, obsolescent towards costa, some black scales on its outer edge and on inner edge at discal fold, excurved at middle; a fine rufous terminal line; cilia pale rufous with a fine whitish line at base; the underside creamy white slightly irrorated with brown.

Hab. Punjab, Moghal Sarai (*Betton*), 1 ♀; Sikhim, 1800′ (*Dudgeon*), 1 ♀; Madras, Belgaum (*Watson*), 1 ♀; Ceylon (*Mackwood*), 2 ♀ type; Singapore (*Ridley*), 2 ♀. *Exp.* 20–24 millim.

Larva. Dudgeon, J. Bomb. Nat. Hist. Soc. xiii. p. 379.

White; head dark. Feeds on the Lac Insect, *Tachardia lacca*, forming a web beneath their resinous coating connected with the open air by a silk tube. 8–11.

5271. Eublemma roseonivea.

Acontia roseonivea, Wlk. Journ. Linn. Soc., Zool. vii. p. 49 (1864); Swinh. Cat. Het. Mus. Oxon. ii. p. 64, pl. 1. f. 11.

Head, thorax, and abdomen creamy white, the head suffused with rufous, the tegulæ with dark brown line at base; legs tinged with brown. Fore wing creamy white slightly tinged with rufous except on costal area to beyond middle and on terminal area; subbasal, antemedial, and medial black-brown points on costa; a black discoidal point; traces of a sinuous medial line from cell to inner margin; subterminal, line defined by deep rufous suffusion on inner side except at costa, oblique from costa to vein 6 where it is acutely angled, angled inwards at discal fold, then excurved to near termen at vein 2 and again slightly angled inwards and ending at tornus, with slight black points beyond it between veins 7 and 4; a terminal rufous line; cilia tinged with rufous. Hind wing creamy white; traces of a sinuous rufous medial line from cell to inner margin; subterminal line oblique, defined on inner side by a deep rufous band from vein 6 to tornus and with black points beyond it between veins 7 and 4; a fine rufous terminal line; cilia pale rufous with a fine white line at base; the underside creamy white with a faint shade representing the subterminal band.

Ab. 1. Fore wing with the subterminal line not angled inwards at vein 2; hind wing with the subterminal line more curved and less oblique.

Hab. Borneo, Sarawak, Malang (*Shelford*), 1 ♂, Sandakan (*Pryer*), 1 ♂; Philippines, Luzon, San Fernando (*McGregor*), 1 ♀. *Exp.* 20–26 millim. Type † ♂ in Mus. Oxon.

5272. Eublemma ecthæmata.

Eublemma ecthæmata, Hmpsn. P. Z. S. 1896, p. 262, pl. x. f. 6.

♀. Head and tegulæ rufous mixed with some white; thorax white; tarsi brown ringed with whitish; abdomen white faintly tinged with ochreous. Fore wing pure white; a subbasal black point on costa; a small antemedial black spot on costa and some scales on inner margin; an oblique reddish brown and black patch before the postmedial line from costa to lower angle of cell, the reniform placed on it, with metallic bluish centre defined by black, oblique and rather irregular; postmedial line slight, double filled in with white, excurved from below costa to vein 4, slightly angled inwards at vein 2, then excurved and with black striga on the inner line below vein 2, a faint rufous line beyond it and a red-brown patch on costa; subterminal line with three black points towards costa, then slightly defined on outer side by brownish, minutely dentate, excurved at middle and to tornus; a fine waved black terminal line; cilia white tinged with brown. Hind wing white; a faint sinuous brownish postmedial line; a diffused

brownish subterminal line bent outwards to termen above tornus, the area beyond it tinged with pink; a terminal series of black points; cilia white tinged with pink; the underside white, the costal area and terminal area to vein 2 tinged with pink, postmedial, subterminal, and terminal series of black points.

♂. Head and tegulæ white; fore wing with the patches before and beyond the postmedial line blood-red, the reniform filled in with red; hind wing without the dark postmedial and subterminal lines.

Hab. Aden, S. Othman (*Nurse*), 1 ♂ type; Natal, Estcourt (*Hutchinson*), 1 ♀. *Exp.* 20 millim.

5273. Eublemma vestalis. (Plate CLIV. fig. 9.)

Anthophila vestalis, Butl. Trans. Ent. Soc. 1886, p. 405.

♂. Head and tegulæ yellowish tinged with rufous; thorax and abdomen white; the legs and abdomen faintly tinged with brown. Fore wing pure white; the costal edge rufous on basal half; two oblique black-brown striæ on postmedial part of costa, followed by a line oblique from costa to vein 7 near termen, then inwardly oblique and almost obsolete, some rufous suffusion in its angle; a rufous subapical patch with two dark striæ above it on costa and a minute black lunule on its outer edge; a rufous subterminal band except towards apex, its inner edge crenulate and with black points at the indentations; a fine red-brown terminal line; cilia rufous, white at apex. Hind wing pure white with fine brown terminal line. Underside of fore wing with the costal half tinged with rufous.

Hab. Queensland, Peak Downs, 1 ♂ type. *Exp.* 20 millim.

5274. Eublemma flaviciliata, n. sp. (Plate CLIV. fig. 10.)

Head, tegulæ, and legs orange; thorax white; abdomen pale yellow. Fore wing yellowish white, the apical and terminal areas, except at tornus, orange, the costal edge orange towards base; an orange point on middle of costa; two oblique orange striæ from costa beyond middle; an oblique black bar from apex defined at sides by white; a fine brown terminal line; cilia orange with fine white line at base, the tips rufous. Hind wing white tinged with yellow; cilia orange, whitish at tips; the underside suffused with orange.

Hab. N. Nigeria, Borgu, Yelwa Lake (*Migeod*), 1 ♂, 1 ♀ type. *Exp.* 20 millim.

5275. Eublemma xanthocraspis, n. sp. (Plate CLIV. fig. 11.)

♂. Head, tegulæ, and legs orange; thorax fuscous grey; abdomen fuscous grey with yellowish white segmental lines, the extremity and ventral surface orange. Fore wing fuscous grey thickly and minutely irrorated with silvery white, the costal area

yellow deepening to orange at costa : an oblique black striga from middle of costa ; two oblique black postmedial striæ from costa with orange line from them across costal area, then with hardly traceable oblique whitish lines from them from below apex to inner margin where they are further apart ; two black subapical points on a small wedge-shaped white patch with slight rufous marks on it at costa and on inner edge ; a rufous terminal line ; cilia yellowish white. Hind wing very pale yellow ; the underside deeper yellow except on inner area.

Hab. Br. E. Africa, Machakos (*Crawshay*), 1 ♂ type. *Exp.* 22 millim.

5276. Eublemma plumbosa. (Plate CLIV. fig. 12.)

Eublemma plumbosa, Dist. A. M. N. H. (7) iii. p. 462 (1899).

Head, tegulæ, and legs orange ; thorax white ; abdomen yellowish white. Fore wing grey-white, the costal area white becoming orange-yellow towards apex ; a slight oblique orange postmedial line defined by white on outer side from costa to vein 7 ; a black apical spot ; cilia yellowish white. Hind wing yellowish white ; the underside orange-yellow except on inner area.

Hab. Mashonaland, Salisbury (*Marshall*), 1 ♂, 1 ♀ ; Transvaal (*Janse*), 1 ♂. *Exp.* ♂ 20, ♀ 22 millim.

5277. Eublemma colla.

Xanthoptera colla, Schaus, Lep. Sierra Leone, p. 35, pl. 3. f. 6 (1893).

♂. Head and thorax deep orange ; thorax white in front, pale brownish behind ; abdomen pale brownish ; pectus and ventral surface of abdomen white ; legs yellowish. Fore wing white suffused with pale rufous, the costal area pure white with the costal edge orange to beyond middle ; a faint oblique yellowish striga from costa beyond middle ; a dark brown bar from costa just before apex with two black points on it ; a fine rufous terminal line. Hind wing white suffused with pale rufous ; a fine rufous terminal line.

Hab. Sierra Leone (*Clements*), 1 ♂. *Exp.* 22 millim.

5278. Eublemma innocens. (Plate CLIV. fig. 13.)

Thalpochares innocens, Butl. Trans. Ent. Soc. 1886, p. 405.

Head and tegulæ orange ; thorax and abdomen creamy white, the former pure white in front ; fore and hind legs suffused with orange. Fore wing white faintly tinged with brown except on costal area to beyond middle, the costal edge orange, dark brown towards base ; the male with minute medial and postmedial dark points on costa, the latter with slight oblique orange striga from it ; a subterminal series of minute black points ; cilia yellow tinged with brown at tips. Hind wing white, the termen faintly tinged

with rufous; a fine brown terminal line; the underside with the costal area tinged with yellow.

Hab. Queensland, Peak Downs, 1 ♀ type, Brisbane (*Turner*), 1 ♂, 1 ♀. *Exp.* 20–22 millim.

5279. **Eublemma flavistriata**, n. sp. (Plate CLIV. fig. 14.)

♂. Head and thorax white faintly tinged with ochreous; palpi, antennæ, fore and mid legs fulvous yellow; abdomen ochreous white. Fore wing white suffused with fulvous yellow, the discal and submedian folds slightly irrorated with brown; a minute black discoidal point; postmedial line double and orange towards costa, then hardly traceable and inwardly oblique; an oblique fuscous striga from apex and subterminal series of black points sometimes almost obsolete; an orange terminal line; cilia white irrorated with fuscous and with white line at base. Hind wing uniform creamy white; the underside with the costal area tinged with ochreous, a terminal series of slight dark points from apex to vein 2.

Hab. Br. E. Africa, Kibauni (*Crawshay*), 3 ♂ type, Kilimakio (*Crawshay*), 1 ♂, Kikuyu (*Crawshay*), 1 ♂. *Exp.* 18–20 millim.

5280. **Eublemma agrapta.** (Plate CLIV. fig. 15.)

Eublemma agrapta, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 449 (1897).

♂. Head and tegulæ pale fulvous; thorax pinkish, white in front; pectus, legs, and abdomen white slightly tinged with brown. Fore wing pale pinkish irrorated with a few black scales, the costa whitish to beyond middle with the costal edge brown towards base; an indistinct punctiform dark postmedial line, very oblique from costa to vein 6, then oblique to middle of inner margin; a subterminal series of black points; a fulvous terminal line; cilia with a fine whitish line at base. Hind wing whitish, the terminal area tinged with brown; the underside with the costal area tinged with brown.

Hab. Ceylon, Puttalam (*Pole*), 1 ♂ type. *Exp.* 22 millim.

5281. **Eublemma pyrastis**, n. sp. (Plate CLIV. fig. 16.)

♂. Head and tegulæ yellowish white; thorax white; palpi tinged with red, the antennæ and legs with brown; abdomen ochreous white. Fore wing fiery red, the inner area paler; slight subbasal and antemedial patches of brown scales pencilled with white on costal area; a few black scales on discocellulars and traces of a medial sinuous band formed of brown scales pencilled with white from costa to upper angle of cell and from lower angle to inner margin; a subterminal series of slight elongate black points; the termen greyish; cilia white at base, then white irrorated with brown. Hind wing pale ochreous, the termen tinged with brown;

a fine brown terminal line; cilia ochreous white. Underside fore wing suffused with brown; the hind wing white irrorated with brown.

Ab. 1. Fore wing much less strongly suffused with red.

Hab. Transvaal (*Cholmley*), 1 ♂ type, White R. (*Cooke*), 1 ♂; Natal. *Exp.* 18–22 millim.

5282. Eublemma conspersa. (Plate CLIV. fig. 17.)

Aphendala conspersa, Butl. P. Z. S. 1880, p. 673; Hmpsn. Moths Ind. ii. p. 327.
Acantholipes acervalis, Swinh. P. Z. S. 1886, p. 451; Hmpsn. Moths Ind. ii. p. 327.
Mircsa quadrinotata, Moore, P. Z. S. 1888, p. 403.

Head, thorax, and abdomen ochreous white; palpi, antennæ, and legs more rufous. Fore wing ochreous white, more or less tinged with rufous and irrorated with brown except on inner area leaving more or less distinct pale streaks on the veins of terminal area; a faint dark shade in discal fold from before middle to termen; ill-defined black points in cell towards extremity and on disco-cellulars; indistinct subterminal blackish points from costa to vein 3. Hind wing ochreous white tinged with ochreous and slightly irrorated with brown; the underside white irrorated with rufous except the cell and inner area.

Ab. 1. Much whiter.—Louisiades.

Hab. Formosa (*Hobson*), 2 ♂ type; Punjab, Kulu (*Hocking*), 2 ♂ type *quadrinotata*, Simla (*Harford*), 1 ♂; Bombay, Mhow (*Swinhoe*), 1 ♂ type *acervalis*; Ceylon, Puttalam (*Pole*), 1 ♀; Louisiades, St. Aignan (*Meek*), 1 ♂. *Exp.* 16–22 millim.

5283. Eublemma griseola. (Plate CLIV. fig. 18.)

Thalpochares pallidula, Ev. Bull. Mosc. 1857, iv. p. 416 (nec Herr.-Schäff.).
Thalpochares griseola, Ersch. Fedtsch. Reis. p. 51, pl. 4. f. 55 (1874); Staud. Cat. Lep. pal. p. 229.
Thalpochares squalida, Staud. Hor. Soc. Ent. Ross. xiv. p. 413 (1878).

Head and tegulæ white; palpi, thorax, and legs white tinged with rufous; abdomen ochreous white. Fore wing pale rufous irrorated with fuscous brown leaving the veins paler, the costal edge pure white. Hind wing white suffused and irrorated with rufous, the costal area and cilia whiter; the underside pure white.

Ab. 1. Fore wing not irrorated with brown and with traces of a subterminal series of black points.

Hab. Armenia; Persia, Scharud (*Christoph*), 1 ♂, 2 ♀; W. Turkestan, Turcomania, Fergana, Sarawschan, Issyk-Kul E. Turkestan, Ili. *Exp.* 24 millim.

5284. Eublemma uniformis. (Plate CLIV. fig. 19.)

Thalpochares uniformis, Staud. Hor. Soc. Ent. Ross. xiv. p. 414 (1878); id. Cat. Lep. pal. p. 229.

♂. Head, thorax, and abdomen creamy white; palpi, antennæ, and fore legs tinged with brown. Fore wing white faintly tinged with rufous, the costal area pure white. Hind wing white faintly tinged with rufous. Underside of fore wing faintly tinged with rufous.

♀. Thorax and abdomen tinged with rufous; fore wing suffused with rufous, the costal edge white; hind wing suffused with brown, the cilia white tinged with rufous; underside of fore wing white irrorated with brown, of hind wing white.

Hab. Armenia; Persia; W. Turkestan, Aulie Ala, 1 ♂, 1 ♀, Sarawschan, Issyk-Kul; E. Turkestan, Ili. *Exp.* ♂ 22, ♀ 26 millim.

5285. Eublemma leucanides. (Plate CLIV. fig. 20.)

Thalpochares leucanides, Staud. Stett. Ent. Zeit. 1889, p. 55; id. Cat. Lep. pal. p. 229.

♂. Head and tegulæ white; thorax white tinged with rufous; abdomen white. Fore wing pale rufous, the costal area whiter to middle and the costal edge white to apex. Hind wing white, the terminal area very faintly tinged with rufous; a fine rufous terminal line; cilia white; the underside pure white.

♀. Fore wing more rufous, with the costal edge only white; hind wing tinged with rufous.

Hab. E. Turkestan, Kashgar, 1 ♂, 1 ♀. *Exp.* 30 millim.

5286. Eublemma himmighoffeni.

Micra himmighoffeni, Mill. Icones, ii. p. 292, pl. 82. ff. 1, 2 (1868); Staud. Cat. Lep. pal. p. 229.

Head, thorax, and abdomen white. Fore wing white, the costa yellow towards base and the costal edge rufous; an oblique yellow antemedial band; a rufous subterminal line with a yellow band before it and defined on outer side by black scales, the area beyond it grey; cilia grey irrorated with brown. Hind wing almost pure white.

Hab. S. France, Leech Coll.; Spain, Catalonia, Barcelona, Frey and D'Emmich Colls. *Exp.* 14 millim.

*5287. Eublemma illota.

Thalpochares illota, Christ. Rom. Mém. iii. p. 83, pl. 4. f. 7 (1887); Staud. Cat. Lep. pal. p. 229.

♂. Head, thorax, and abdomen white slightly tinged with ochreous brown. Fore wing ochreous white, the costa ochreous,

the terminal area tinged with pink; a faint fuscous discoidal spot; an oblique dark streak from apex and subterminal series of points; cilia yellowish grey. Hind wing whitish suffused with brown.

Hab. W. Turkestan, Askhabad. *Exp.* 26 millim. This species is unknown to me.

*5288. Eublemma vollastoni. (Plate CLIV. fig. 21.)

Eublemma wollastoni, N. Roths. Nov. Zool. viii. p. 430 (1901).

♂. Head, thorax, and abdomen white. Fore wing yellowish white with slight black points in and beyond end of cell and traces of a few subterminal black scales. Hind wing pure white.

Hab. Egypt, Shendi (*Rothschild*), type † ♂ in Coll. Rothschild. *Exp.* 18 millim.

5289. Eublemma psamathea, n. sp. (Plate CLIV. fig. 22.)

♂. Head, thorax, and abdomen white tinged with ochreous; palpi, antennæ, and legs tinged with brownish ochreous. Fore wing white tinged with ochreous and slightly irrorated with brown; black points formed of a few scales in cell towards extremity and on discocellulars; a subterminal series of points formed of a few black scales. Hind wing white faintly tinged with ochreous. Underside of both wings with the terminal half of costal area irrorated with brown scales.

Hab. Br. E. Africa, Taveta (*Rogers*), 1 ♂ type. *Exp.* 16 millim.

5290. Eublemma penicillata. (Plate CLIV. fig. 23.)

Eublemma penicillata, Hmpsn. Ann. S. Afr. Mus. ii. p. 422 (1902).

♂. Head and thorax ochreous white; palpi, antennæ, and legs tinged with rufous; abdomen ochreous tinged with rufous. Fore wing pale ochreous irrorated with brown, the costal edge tinged with rufous towards apex; a blackish discoidal point; an oblique brownish shade from apex diffused to termen; a terminal series of dark points; cilia ochreous white irrorated with brown. Hind wing pale ochreous tinged with brown towards termen; cilia ochreous white; the underside ochreous white slightly irrorated with brown.

♀. Fore wing much more thickly irrorated with brown, leaving the veins pale; hind wing darker.

Hab. Rhodesia, Bulawayo (*Eyles*), 1 ♂; Transvaal, White R. (*Cooke*), 1 ♂; Natal, Malvern (*Marshall*), 1 ♂, 1 ♀ type. *Exp.* 22 millim.

5291. Eublemma uninotata. (Plate CLIV. fig. 24.)

Eublemma uninotata, Hmpsn. Ann. S. Afr. Mus. ii. p. 422 (1902).

Head and thorax pure white; palpi and antennæ tinged with ochreous, the legs with brown; abdomen ochreous white. Fore wing creamy white tinged with ochreous brown; a black discoidal point diffused into a short streak; rather elongate subterminal blackish points in discal and submedian folds; cilia brownish at tips. Hind wing creamy white. Underside of fore wing suffused with ochreous brown.

Hab. Transvaal, Modderfontein (*Cruger*), 1 ♂, 1 ♀; Natal, Estcourt (*Hutchinson*), 1 ♂ type; Basutoland, Maseru (*Crawshay*), 1 ♂. *Exp.* 24–30 millim.

*5292. Eublemma albivestalis, n. n. (Plate CLIV. fig. 25.)

Thalpochares vestalis, Staud. Iris, xii. p. 385 (1899) nec Butl. 1886; id. Cat. Lep. pal. p. 230.

♂. Head, thorax, and abdomen creamy white; palpi, antennæ, and legs tinged with rufous. Fore wing creamy white, with a slight blackish discoidal point. Hind wing creamy white. Underside of fore wing with the costal half tinged with rufous.

Hab. Palestine, Dead Sea, in Coll. Püngeler. *Exp.* 22 millim. This is possibly a form of *E. suppura*, with the markings obsolete.

5293. Eublemma subvenata. (Plate CLIV. fig. 26.)

Thalpochares subvenata, Staud. Iris, v. p. 288, pl. 3. f. 13 (1892); id. Cat. Lep. pal. p. 229.

♂. Head, thorax, and abdomen silvery white; palpi, antennæ, and legs slightly tinged with brown. Fore wing silvery white slightly tinged and irrorated with brown except on basal half of costal area, the veins remaining pure white; a fine brown terminal line. Hind wing silvery white faintly tinged with brown.

Hab. Algeria, El Kantara (*Walsingham*), 1 ♂; Palestine. *Exp.* 14 millim.

5294. Eublemma albivena, n. sp. (Plate CLIV. fig. 27.)

♀. Head white, the palpi and antennæ tinged with ochreous; thorax and abdomen ochreous white. Fore wing white tinged with ochreous and irrorated with brown, leaving the veins whitish; a fine brown terminal line; cilia pure white at base, then white irrorated with brown. Hind wing white tinged with ochreous; a fine pale brown terminal line; cilia white.

Hab. Transvaal, Warmbad (*Janse*), 1 ♀ type. *Exp.* 20 millim.

5295. **Eublemma leuconeura**, n. sp. (Plate CLIV. fig. 28.)

♀. Head and thorax white, the palpi, antennæ, and legs tinged with brownish ochreous; abdomen white tinged with ochreous. Fore wing ochreous irrorated with brown, the veins and costal area pure white; cilia ochreous irrorated with brown. Hind wing white tinged with ochreous; cilia white; the underside white.

Hab. Cape Colony, Deelfontein (*Sloggett*), 2 ♀ type. *Exp.* 20 millim.

5296. **Eublemma conistrota**, n. sp. (Plate CLIV. fig. 29.)

♂. Head, thorax, and abdomen white; palpi, antennæ, and fore legs slightly tinged with brown. Fore wing white tinged with ochreous brown except at costa, the costal edge blackish towards base; discal and submedian folds except at base and the interspaces beyond the cell to near termen irrorated with black. Hind wing white faintly tinged with ochreous brown.

♀. Thorax suffused with brown; abdomen slightly tinged with brown; fore wing suffused with brown, the interspaces irrorated with fuscous except on costal area, leaving the veins whitish; hind wing strongly tinged with brown.

Hab. Beloochistan, Quetta (*Nurse*), 1 ♂, 1 ♀ type. *Exp.* ♂ 28, ♀ 20 millim.

5297. **Eublemma bulla.**

Micra bulla, Swinh. P. Z. S. 1884, p. 518, pl. 47. f. 9; Hmpsn. Moths Ind. ii. p. 338.
Marimatha pura, Swinh. P. Z. S. 1885, p. 456, pl. 28. f. 16.

♂. Head and thorax white; palpi, antennæ, and legs tinged with brown; abdomen white tinged with ochreous. Fore wing white faintly tinged and irrorated with brown. Hind wing pure white.

♀. Head, thorax, and wings more or less strongly tinged with reddish brown.

Ab. 1. *pura*. Larger; fore wing with faint oblique brown shade from apex.

Hab. Sind, Karáchi (*Swinhoe*), 1 ♂, 2 ♀ type; Bombay, Poona (*Swinhoe*), 1 ♂ type *pura*. *Exp.* 14–22 millim.

*5298. **Eublemma virginalis.**

Anthophila virginalis, Oberth. Ét. Ent. vi. p. 90, pl. 11. f. 1 (1881); Staud. Cat. Lep. pal. p. 229.
Anthophila caid, Oberth. Et. Ent. vi. p. 91, pl. 11. f. 2 (1881).

Head, thorax, and abdomen pure white; palpi, antennæ, and legs faintly tinged with brown. Fore wing creamy white, the

costa pure white, a slight yellowish terminal line. Hind wing pure white.

Ab. 1. *caid*. Fore wing with a very faint blackish streak in discal fold from before end of cell to the subterminal series of slight points formed of aggregated black scales; a faint brownish tinge below costa towards apex, the cilia tinged with brown.

Hab. Algeria, Sebdou, in Coll. Joannis. *Exp.* 26 millim.

5299. Eublemma deserta. (Plate CLIV. fig. 30.)

Thalpochares deserta, Staud. Iris, xii. p. 383 (1899); id. Cat. Lep. pal. p. 229.

♂. Head, thorax, and abdomen pure white; palpi, fore and mid legs faintly tinged with brown. Fore wing creamy white, the costa pure white; traces of subterminal black points from below apex to discal fold. Hind wing creamy white. Underside of fore wing with the costal area faintly tinged with brown.

Hab. Algeria, Biskra, 1 ♂, Hammam-es-salahin (*Walsingham*), 1 ♂. *Exp.* 22 millim.

5300. Eublemma straminea. (Plate CLIV. fig. 31.)

Thalpochares straminea, Staud. Iris, iv. p. 322 (1891); id. Cat. Lep. pal. p. 229.

♂. Head, thorax, and abdomen chalky white slightly tinged with ochreous; palpi and fore legs reddish brown. Fore wing chalky white, the terminal area and cilia faintly tinged with brown. Hind wing chalky white with a faint ochreous tinge. Underside of fore wing suffused with rufous; hind wing with the costa and termen tinged with rufous.

Hab. Kurdistan, Malatia; Asia Minor, Taurus; Mesopotamia, Diarbekr, 1 ♂. *Exp.* 26 millim.

5301. Eublemma flavia, n. sp. (Plate CLIV. fig. 32.)

♂. Head, thorax, and abdomen pale yellow. Fore wing pale yellow, the costal and terminal areas slightly tinged with brown; a terminal series of black points. Hind wing pale yellow, the termen slightly tinged with brown; a terminal series of black points from apex to vein 2. Underside of fore wing with diffused oblique brown fascia from cell before middle to beyond upper angle, and a diffused oblique brown band from apex to inner margin beyond middle.

Hab. Panama, La Chorrera (*Dolby-Tyler*), 1 ♂ type. *Exp.* 14 millim.

Genus DECTICRYPTIS, nov.

Type, *D. deleta*.

Proboscis fully developed; palpi upturned, very slender and hardly reaching middle of frons which is smooth; eyes large, round; antennæ of male ciliated, with tuft of scales from basal joint; thorax clothed with hair and scales mixed and without crests; tibiæ smoothly scaled, the spurs long; abdomen without crests. Fore wing with the apex produced and acute, the termen excised to vein 4 where it is angled, then oblique to tornus, not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7, 8 stalked, 9 absent; 10, 11 from cell. Hind wing with the costa slightly excised beyond middle; the apex produced and acute, the termen excised below apex; veins 3, 4 stalked; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5302. Decticryptis deleta.

Niaccaba deleta, Moore, Lep. Ceyl. iii. p. 304, pl. 197. f. 13 (1885) Hmpsn. Moths Ind. iv. p. 517.

Head and tegulæ pure white; palpi, frons, and antennæ except at base brownish ochreous, the palpi brownish at tips; thorax and abdomen brownish ochreous, the fore tibiæ brown in front. Fore wing white, suffused with brownish ochreous; a brownish subbasal shade from cell to inner margin with a black point on it above inner margin; a curved slightly sinuous antemedial brownish line diffused on outer side; a black point in middle of cell; a faint whitish discoidal bar; postmedial line white, defined on inner side by brownish suffusion, oblique from costa to discal fold near termen

Fig. 40.—*Decticryptis deleta*, ♂. ♀.

where there is some rufous before it, then strongly incurved to inner margin; a white line just before termen, excurved at middle, then bent inwards and oblique to tornus; some blackish on termen from below apex to the angle at vein 4. Hind wing white, the costal half and inner margin suffused with brownish ochreous; a brown medial line interrupted in submedian interspace; two black discoidal points, sometimes connected and forming a bar; a curved brown postmedial line interrupted in submedian interspace, defined by white on outer side; a white subterminal line excurved below costa and ending at vein 2, defined on inner side by reddish brown; the underside white with sinuous brown medial line, discoidal striga, curved postmedial line from costa to vein 4 and subterminal band from costa to vein 4.

Ab. 1. Wings white with the markings obsolescent.

Ab. 2. The type. Hind wing with the subterminal line defined on inner side by black.

Ab. 3. Fore wing with the subterminal line defined on inner side by black from below costa to vein 4 and with black beyond it extending on to the cilia at apex and middle.

Hab. Ceylon, 2 ♂ type, Puttalam (*Pole*), 2 ♂, 1 ♀; Pulo Laut (*Doherty*), 3 ♂, 4 ♀; Bali (*Doherty*), 1 ♂, 1 ♀; Sumbawa, Iambora (*Doherty*), 1 ♀; Louisiades, Rossel I. (*Meek*), 1 ♂; L'Entrecasteaux Is., Goodenough I. (*Meek*), 1 ♀. *Exp.* 10–16 millim.

Genus **HOLOCRYPTIS.**

	Type.
Holocryptis, Lucas, P. Linn. Soc. N. S. W. (2) vii. p. 256 (1892).	*phasianura.*
Troctoptera, Hmpsn. Ill. Het. B. M. ix. p. 99 (1893)	*erubescens.*

Proboscis fully developed; palpi upturned, slender, the 2nd joint reaching about to middle of frons, the 3rd moderate; frons smooth; eyes large, round; antennæ of male laminate; thorax clothed with hair and scales mixed and without crests; tibiæ smoothly scaled, the inner spurs long; abdomen without crests. Fore wing with the apex rectangular, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with the costa excised beyond middle; veins 3, 4 stalked; 5 nearly fully developed from well above angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with oblique black medial band; hind wing with the terminal area blood-red ..... *bisectalis.*
B. Fore wing without oblique black medial band; hind wing with the terminal area not blood-red.
  a. Hind wing with bright rufous subterminal band.
    *a*¹. Hind wing with blue-black band beyond the postmedial line ..... *phasianura.*
    *b*¹. Hind wing without blue-black band beyond the postmedial line. ..... *erubescens.*
  b. Hind wing without rufous subterminal band.
    *a*¹. Fore wing with brown patches in and beyond end of cell ..... *pyrrhocosma.*
    *b*¹. Fore wing without brown patches in and beyond end of cell.
      *a*². Fore wing with subterminal black spot on inner margin.
        *a*³. Fore wing with the terminal area not suffused with black.
          *a*⁴. Hind wing with black discoidal point on a white patch enclosed by a brown annulus ... *erosides.*
          *b*⁴. Hind wing with rufous bar or points at end of cell ..... *chimonosema.*
        *b*³. Fore wing with the terminal area suffused with black ..... *atriplaga.*
      *b*². Fore wing without subterminal black spot on inner margin ..... *assimilans.*

5303. **Holocryptis bisectalis.** (Plate CLV. fig. 1.)

Cataclysta bisectalis, Wlk. xvii. 449 (1859); Hmpsn. Moths Ind. iv. p. 517.

Head and thorax white very slightly tinged with brown; abdomen white dorsally tinged with brown especially towards extremity and with dorsal series of blackish points. Fore wing white, a black

point in base of cell; a minutely waved fuscous subbasal line from costa to inner margin, with some rufous suffusion beyond it in and below cell; antemedial line blackish, obliquely excurved from costa to submedian fold, then incurved; some blackish irroration beyond it and an ochreous tinge at costa; a black point in middle of cell; an inwardly oblique straight black medial band: two black discoidal striæ, the lower one oblique; postmedial line slight, blackish, with black striæ at costa and inner margin, angled outwards below costa and slightly incurved at submedian fold; a faint yellowish patch on costal area towards apex and a reddish patch on inner margins towards tornus defined on inner side by fuscous; a punctiform blackish terminal line; cilia yellowish white with some fuscous towards tornus. Hind wing white to postmedial line, then blood-red; a black bar across middle of cell with a yellow patch beyond it with the white discoidal lunule defined by black placed on it; medial line black, excurved round end of cell, then bent inwards; postmedial line fine, black, slightly angled outwards below vein 6, then straight; a faint whitish subterminal line slightly angled outwards at vein 6 and with black spot before it above tornus; some blackish suffusion at apex; cilia white, blackish at base, wholly black at apex; the underside white, a blackish medial band, the terminal area dark brown narrowing to a point at tornus.

Hab. Ceylon, 2 ♂, 1 ♀. *Exp.* 16 millim.

5304. **Holocryptis phasianura.** (Plate CLV. fig. 2.)

Holocryptis phasianura, Lucas, P. Linn. Soc. N. S. W. (2) vii. p. 257 (1892).

♂. Head and tegulæ silvery white, the antennæ yellow except basal joint; thorax white tinged with yellow; abdomen yellow with dorsal black point on 3rd segment, the ventral surface yellow. Fore wing white; the costal edge black towards base; a diffused reddish ochreous subbasal shade from below costa to base of inner margin; a black discoidal point and diffused reddish ochreous shade from end of cell to inner margin; a diffused reddish ochreous patch on costa beyond middle; a rounded postmedial rufous patch between

Fig. 41.—*Holocryptis phasianura*, ♂. ⅔.

veins 7 and 4 and a blue-black patch irrorated with a few white scales from vein 3 to inner margin, its outer edge strongly indented; a faint whitish subterminal line slightly defined on each side by rufous suffusion, with brown point at costa, excurved below costa and at middle, with black point before it below vein 3, then

incurved, sinuous and defined by blackish on outer side: a black point on termen: cilia white with a black patch at middle. Hind wing white; a curved red-brown antemedial line, diffused on outer side below costa where there is an oblique red-brown striga beyond it and a black spot beyond it on inner margin; postmedial line blackish with a blue-black band irrorated with some white scales and with rather dentate outer edge on its outer side from costa to vein 2, the line bent outwards below costa; terminal area suffused with yellow; the underside white, the costa tinged with yellow at base and the terminal area from apex to vein 2, a brown medial line, the postmedial band black, ending at vein 2.

♀. Head, thorax, abdomen, and wings more strongly suffused with rufous.

Hab. Queensland, Brisbane (*Turner*), 3 ♂, 2 ♀. *Exp.* ♂ 16–20, ♀ 26 millim.

5305. Holocryptis erubescens.

Troctoptera erubescens, Hmpsn. Ill. Het. B. M. ix. p. 99, pl. 157. f. 16 (1893); id. Moths Ind. ii. p. 344.

♂. Head, thorax, and abdomen creamy white. Fore wing creamy white tinged with pinkish except on apical area: a subbasal black point on inner margin; traces of a waved rufous antemedial line: a black point in middle of cell: an oblique pale red shade from lower angle of cell to inner margin; an oblique pale red shade from middle of costa to termen at vein 4; subterminal line very indistinct, double, reddish from costa to discal fold where there is a whitish spot with minute black lunule on it on its inner side, with minute brown lunules below veins 4 and 3, then incurved, with black spot below vein 2 and patch at inner margin; a series of brown points on termen. Hind wing white; a blood-red patch from middle of costa to lower angle of cell with rather X-shaped white mark on it defined by black scales and with a faint red shade from it to inner margin where there is a black striga on its outer edge; a triangular yellowish white patch on costa beyond middle, its outer edge defined by the much interrupted red-brown postmedial line, a rufous shade from costa towards apex to termen at vein 2; the underside white, a brown subterminal band from costa to vein 2, expanding on inner side below vein 6.

Hab. Ceylon, Pundaloya (*Green*), 1 ♂ type. *Exp.* 20 millim.

5306. Holocryptis permaculata, n. sp. (Plate CLV. fig. 3.)

Head, thorax, and abdomen white slightly mixed with brown, the last with blackish dorsal band on basal segment and subdorsal spots. Fore wing white tinged with rufous except on inner area to beyond middle; a diffused blackish brown subbasal band from cell to inner margin; antemedial line slight, dark with diffused blackish brown band on its outer edge, from below costa to inner margin, incurved at vein 1; a blackish point in middle of cell and triangular

brown patch in end of cell; postmedial line slight, dark, with lunulate brown patch on it beyond the cell, oblique from costa to vein 4, then bent inwards to lower angle of cell and oblique to inner margin; subterminal line represented by a diffused brown spot on costa and a diffused band from discal fold to inner margin, its inner edge excurved between veins 5 and 3; some diffused brown on middle of termen; cilia white with some reddish brown at middle. Hind wing white; a medial band of dark suffusion, tinged with rufous at costa towards which it expands, enclosing a white spot beyond end of cell and with some black on it at end of cell and inner margin; a black-brown postmedial spot on costa; a diffused black-brown subterminal band expanding into a patch at middle; the underside white, the costa tinged with ochreous, a diffused brownish medial band and terminal band narrowing to tornus.

Hab. Sierra Leone (*Clements*), 1 ♂, 1 ♀ type. *Exp.* 16–18 millim.

5307. **Holocryptis erosides.** (Plate CLV. fig. 4.)

Trocloptera erosides, Hmpsn. Ann. S. Afr. Mus. ii. p. 422 (1902).

♂. Head, thorax, and abdomen pure white, the fore tibiæ with a brown stripe in front. Fore wing pure white; a subbasal brown point on costa and brown patch suffused with white on inner area; antemedial line brown, oblique towards costa and incurved below submedian fold; a black point in middle of cell; brown postmedial band suffused with white and with black point on its outer edge at costa, bent outwards below costa, its outer edge indented at discal fold, then excurved to near subterminal line, then bent inwards to below end of cell and oblique to inner margin; subterminal line with small brown spot at costa followed by a very indistinct double line with black point on the inner line at discal fold and small spot at inner margin; cilia with a rufous patch at discal fold. Hind wing pure white, a brown annulus from middle of costa to lower angle of cell enclosing a white patch with black discoidal point on it; two brown striæ at middle of inner margin; subterminal line double, brown, the inner line somewhat diffused, slightly sinuous and ending at vein 2; cilia tinged with rufous at discal fold; the underside white with brown band just before termen from costa to vein 2, forking at costa.

Hab. Natal, Victoria Distr. (*Gooch*), 1 ♂ type. *Exp.* 18 millim.

5308. **Holocryptis melanosticta**, n. sp. (Plate CLV. fig. 5.)

Head, thorax, and abdomen pure white. Fore wing pure white; the medial part of costa tinged with rufous with slight dark irroration below it; a black point in cell towards extremity; a pale rufous band just beyond the cell from vein 6 to inner margin, somewhat oblique below the cell; postmedial line slight, dark, very oblique from costa to vein 4 towards termen, then inwardly oblique and with round blackish patch beyond it on inner area; subterminal line

slight, dark, somewhat incurved at discal fold where there is a small black spot before it, incurved below vein 3 and bent outwards to tornus; some slight dark irroration on terminal area; a terminal series of slight black striæ; cilia rufous, white at apex and below middle. Hind wing white; a rufous patch from costa at end of cell with the blackish discoidal bar on its outer edge, sometimes reduced to rufous or blackish points; postmedial line represented by a rufous bar from costa and black striga at inner margin with some rufous irroration before it; a subterminal black spot on costa with diffused brownish band from below it to vein 3; the apex with slight dark irroration; cilia faintly tinged with brown from apex to vein 2; the underside white with terminal brown band from apex to vein 2, forking at apex.

Hab. Sierra Leone (*Clements, Dudgeon*), 2 ♂, 2 ♀ type; S. Nigeria, Old Calabar (*Sampson*), 1 ♂; Br. E. Africa, Mombasa (*Jackson*), 1 ♀. *Exp.* 12–16 millim.

5309. **Holocryptis atrifusa**, n. sp. (Plate CLV. fig. 6.)

Head, thorax, and abdomen white slightly mixed with brown. Fore wing white suffused in parts with pale brown and irrorated with a few black scales; a subbasal black point on costa and diffused oblique pale brownish band from cell to inner margin; an antemedial black point on costa and faint oblique line from beyond it to inner margin; a black point in cell towards lower extremity; an oblique pale brownish band from costa to vein 3, in and beyond the cell to near subterminal line, its outer edge waved and with black point at costa, enclosing a small white spot just beyond the cell, and a diffused oblique sinuous brownish band from lower angle of cell to inner margin, bounded by the white postmedial line; terminal area suffused with black with the indistinct, very minutely waved white subterminal line on it, the apex sometimes whiter; some black points on termen towards apex; cilia white tinged with rufous, black at middle. Hind wing white; a blackish antemedial band from costa to median nervure with some dark irroration and the two black discoidal points beyond it; two black striæ at middle of inner margin; a curved brownish postmedial band from costa to vein 2; a slight brownish subterminal line from costa to vein 2 with black point at costa; some black scales on termen; cilia white faintly tinged with brown at apex and middle and with a few black scales at tornus; the underside white with faint brownish medial band and terminal band from apex to vein 3.

Hab. Assam, Khásis, 1 ♂ type; Ceylon (*Lindesay*), 1 ♀. *Exp.* 14 millim.

*5310. **Holocryptis ussuriensis.**

Trocloptera ussuriensis, Rebel, Staud. Cat. Lep. pal. p. 231 (1901).

♀. Head white; thorax and abdomen white tinged with grey. Fore wing white suffused with grey, darker towards termen; ante-

and postmedial lines white, waved. Hind wing white, suffused with grey, darker towards termen; ante- and postmedial lines white, waved; a fuscous discoidal spot. Underside of fore wing fuscous grey with a white terminal band; hind wing white, the termen fuscous grey.

Hab. E. Siberia, Ussuri, Vladivostok, type † in Coll. Staudinger. *Exp.* 13 millim.

Genus **PHÆOZONA**, nov.

Type, *P. purpurascens.*

Proboscis fully developed; palpi with the 2nd joint obliquely upturned to vertex of head and fringed with hair above and below, the 3rd moderate, porrect; frons smooth; eyes large, round; antennæ somewhat laminate and ciliated; thorax clothed with rough scales and without crests; tibiæ slightly fringed with hair; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9, 10 strongly anastomosing with 8 to form a minute areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from just below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

*5311. Phæozona purpurascens.

Acantholipes purpurascens, Beth.-Baker, Nov. Zool. xiii. p. 265 (1906).

♂. Head and thorax deep red-brown mixed with dark brown; palpi dark brown; pectus and legs greyish mixed with red-brown; abdomen greyish suffused with red-brown, the ventral surface whitish tinged with rufous. Fore wing with the basal area rufous, the rest of wing dark brown except the inner half of medial area which is pale rufous below the cell and the terminal area which is

Fig. 42.—*Phæozona purpurascens*, ♂. ¾.

violaceous grey except at apex: antemedial line indistinct, double, with some pale points on it, curved and minutely waved; two rather triangular discoidal spots defined by whitish; an indistinct oblique line from lower angle of cell to inner margin; postmedial line almost obsolete towards costa, then double filled in with greyish, most distinct towards inner margin, bent outwards below costa, then minutely waved and excurved to vein 2, then erect; subterminal line dark, bounding the brown area, excurved at middle; a

terminal series of small black lunules defined by white on inner side. Hind wing greyish suffused with red-brown; cilia whitish tinged with rufous; the underside whitish irrorated with dark brown to the indistinct oblique postmedial line, then whitish slightly tinged with rufous and with diffused brown patch on termen at vein 1.

Hab. Br. N. Guinea, Dinawa (*Pratt*), type † ♂ in Coll. Bethune-Baker. *Exp.* 24 millim.

Genus **PERYNEA**, nov.

Type, *P. subrosea*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching about to vertex of head and fringed with hair above towards extremity, the 3rd short, porrect; frons with pointed conical prominence; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair, the spurs long; abdomen without crests. Fore wing with the apex somewhat produced and acute, the termen excised below apex and excurved at middle, not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from just below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5312. **Perynea subrosea.**

Rivula subrosea, Butl. Trans. Ent. Soc. 1881, p. 580.

Head and tegulæ pale rufous; thorax and abdomen pale ochreous; fore and mid legs tinged with crimson. Fore wing pale ochreous or violaceous white faintly tinged with rufous and sparsely irrorated with large black scales; a small ill-defined blackish spot in middle of cell and a blackish discoidal spot; medial line double, blackish filled in with rufous, excurved from costa to median nervure, then

Fig. 43.—*Perynea subrosea*, ♂. ♀.

oblique; postmedial line double, blackish filled in with rufous, somewhat oblique below vein 6, some slight black streaks beyond it on costa; a subterminal series of small black spots; a series of black points just before termen. Hind wing pale ochreous slightly tinged with rufous, the inner area irrorated with a few black scales; an oblique blood-red postmedial line from vein 4 to inner margin; traces of a diffused subterminal line; a series of black

points just before termen. Underside of fore wing strongly suffused with crimson except inner area; hind wing slightly suffused with crimson.

Hab. Japan, Kiushiu (*Leech*), 1 ♀, Tokio (*Fenton*), 1 ♂ type, Yokohama (*Pryer*), 3 ♂. *Exp.* 20 millim.

Genus **PEPERITA**, nov.

Type, *P. molybdopasta*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head, moderately fringed with hair in front and behind towards extremity, the 3rd joint minute, porrect; frons smooth; eyes large, round; antennæ of male with fasciculate cilia; thorax clothed with hair and scales mixed, and without crests; tibiæ moderately fringed with hair; abdomen with dorsal series of crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from just below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5313. Peperita molybdopasta.

Erastroides molybdopasta, Turner, Tr. R. Soc. S. Austr. xxxii. p. 69 (1908).

Head and thorax ochreous grey mixed with black scales tipped with silver; palpi, fore legs, and tarsi blackish; abdomen ochreous grey irrorated with black, the crests black tipped with silver. Fore wing ochreous grey irrorated with black and a few silver scales, and with basal, antemedial and medial black patches on costa irrorated with silver; an indistinct oblique antemedial black line; a diffused black discoidal patch with some silver scales on it; a sinuous black line from lower angle of cell to inner margin; postmedial area with black streaks on the veins and white points with black between

Fig. 44.—*Peperita molybdopasta*. ♂. ♀.

them on costa, traces of a whitish subterminal line excurved at middle; a terminal series of black points; cilia chequered ochreous and black. Hind wing ochreous grey irrorated with black and a few silver scales; indistinct minutely waved medial, postmedial, and subterminal lines; a punctiform black terminal line; cilia ochreous with a black line near tips; the underside grey irrorated and suffused with brown, a slight discoidal lunule, curved medial line and diffused subterminal band.

Hab. Queensland, Kuranda (*Dodd*), 2 ♂, 1 ♀. *Exp.* 18–20 millim. Type † in Coll. Turner.

Genus **HÆMAPHLEBIA**, nov.

Type, *H. atripalpis*.

Proboscis fully developed; palpi obliquely porrect to well beyond frons, the 2nd joint moderately fringed with scales in front, the 3rd short; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 stalked; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5314. Hæmaphlebia atripalpis, n. sp.

♂. Head and thorax white faintly tinged with brown and irrorated with black; palpi black, pectus and legs brown; abdomen brown, the base white irrorated with black, the anal tuft whitish with two black streaks. Fore wing white tinged with brown and irrorated with black especially on the veins of medial area, the veins of terminal area with slight red streaks; a slight waved black subbasal line from costa to vein 1; a waved black antemedial line; a small black discoidal lunule with diffused bar above it from costa and a diffused blackish patch on middle of inner margin; postmedial line black, oblique from costa to vein 6, then minutely dentate, defined by white on outer side with diffused fuscous beyond

Fig. 45.—*Hæmaphlebia atripalpis*, ♂.

it interrupted by an oblique whitish streak above middle; subterminal line rather diffused, blackish, waved, angled inwards at discal fold and with black spots beyond it below veins 4 and 2; a lunulate black terminal line; cilia white intersected with black and with black patches below veins 4 and 2. Hind wing whitish suffused and striated with fuscous brown, the basal area whiter, the veins of terminal area with slight red streaks; double diffused black marks at and beyond lower angle of cell and on vein 1 with the whitish postmedial line beyond them from vein 4 to inner margin; a faint diffused whitish subterminal line towards tornus; a lunulate black terminal line; cilia white at base, chequered brown and black at tips; the underside grey suffused with brown

and striated with fuscous, a blackish discoidal striga and punctiform postmedial line defined by whitish on outer side.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♂ type. *Exp.* 16 millim.

Genus **LIGIDIA.**

Type.
Ligidia, Wlk. Journ. Linn. Soc., Zool. vi. p. 117 (1862)..... *decissima*.

Proboscis aborted, small; palpi obliquely upturned, the 2nd joint reaching about to middle of frons and fringed with scales above towards extremity, the 3rd short, porrect; frons smooth, with tuft of hair; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ moderately fringed with hair, the spurs long; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; vein 3 from well before angle of cell; 5 from just above angle; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 stalked. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

*5315. Ligidia decissima.

Ligidia decissima, Wlk. Journ. Linn. Soc., Zool. vi. p. 117 (1862); Swinh. Cat. Het. Mus. Oxon. i. p. 104.

♂. Head and thorax ochreous tinged with pinkish rufous; abdomen ochreous. Fore wing ochreous suffused with pinkish rufous; four black points on terminal half of costa; a terminal series of black points and a black patch at middle of cilia. Hind

Fig. 46.—*Ligidia decissima*, ♂. $\frac{3}{4}$.

wing brownish ochreous; a terminal series of black striæ. Underside of fore wing with some brown suffusion on disk, an oblique black bar from middle of costa: hind wing slightly irrorated with black, a black discoidal point with point above it on costa, a terminal series of points larger towards apex.

Hab. Borneo, Sarawak (*Wallace*), type † ♂ in Mus. Oxon. *Exp.* 16 millim.

Genus **TOANA.**

Type.
Toana, Wlk. xxxii. 500 (1865) ..... *semiochrealis*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint fringed with scales above towards extremity, the 3rd moderate, porrect; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely

with scales, tibiæ moderately fringed with hair; abdomen without crests. Fore wing with the apex rounded; vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from well above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Metathorax with depressed crest; fore wing with the termen somewhat excised below apex and excurved at middle.

A. Fore wing crimson tinged with brown ..... *caustipennis.*
B. Fore wing with the ground-colour ochreous.
a. Fore wing without black patch on termen below apex . *semiochrealis.*
b. Fore wing with black patch on termen below apex ... *cruspedica.*

5316. Toana caustipennis.

Naranga caustipennis, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 447 (1897).

♂. Head and thorax black mixed with rufous; palpi at tips and frons white tinged with pink; metathorax and basal half of abdomen red; pectus, legs, terminal half of abdomen and ventral surface black mixed with grey. Fore wing crimson suffused with brown and tinged with grey except on inner area, the costal area towards apex ferruginous; a curved slightly waved whitish medial line somewhat angled at lower angle of cell; the costa towards apex yellowish white with some black points on it; the terminal area

Fig. 47.—*Toana caustipennis,* ♂. $\frac{3}{2}$.

suffused with black from apex to vein 4: a fine black terminal line; cilia black at apex and middle, white between these points and crimson towards tornus. Hind wing greyish suffused with fuscous brown, the tornal area crimson; cilia black with a yellowish line at base. Underside of fore wing grey suffused with black-brown, the costa rufous and black; hind wing crimson mixed with black-brown and grey, an indistinct curved postmedial line.

Hab. Assam, Khásis, 1 ♂ type. *Exp.* 16 millim.

*5317. Toana semiochrealis. (Plate CLV. fig. 7.)

Toana semiochrealis, Wlk. xxxii. 501 (1865).

♂. Head and thorax ochreous tinged with brown; abdomen ochreous white. Fore wing ochreous; a slight brownish discoidal

bar; postmedial line indistinct, brownish, oblique from costa to vein 6 and incurved below vein 4; some black points on costa towards apex and a terminal series. Hind wing ochreous white; a small black discoidal spot and postmedial point on inner margin; some black points on middle of termen. Underside of fore wing with some reddish suffusion on middle of costa, a slight black striga from middle of costa and a black postmedial line incurved from below costa to lower angle of cell where it terminates; hind wing slightly tinged with reddish and irrorated with fuscous, a black discoidal lunule and traces of a curved postmedial line.

Hab. Borneo, Sarawak (*Wallace*), type ♂ in Mus. Oxon. in bad condition. *Exp.* 16 millim.

5318. **Toana craspedica**, n. sp. (Plate CLV. fig. 8.)

♂. Head and thorax white; palpi and frons black; antennæ blackish except at base; metathorax with a few black scales; abdomen white tinged with brown, some black irroration at middle of dorsum; pectus, legs, and ventral surface of abdomen whitish mixed with black. Fore wing chalky white faintly tinged with brown and slightly irrorated with black; a black spot at base of costa and point at base of vein 1; antemedial line blackish, waved, with black spot at costa and points at median nervure and vein 1; a black discoidal lunule; a diffused medial black shade, excurved from costa to vein 4 beyond the cell, then incurved, with black streaks on and below costa from it to postmedial line which is fine, blackish, waved, excurved, strongly angled inwards at vein 2, then bent outwards above inner margin; a faint diffused blackish subterminal line with black spot at costa enclosing a pale point, excurved below vein 7 and at middle, then incurved, a triangular black patch on termen at discal fold and points below veins 3 and 2, the cilia with small black spots at these points. Hind wing chalky white slightly tinged with brown and irrorated with black; an oblique postmedial series of black points from vein 6 to inner margin; a faint diffused subterminal shade, excurved at middle and slightly angled inwards at vein 2; a terminal series of black points; the underside strongly irrorated with black, a slight discoidal lunule, postmedial shade on costal area and subterminal shade incurved below vein 4.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♂ type. *Exp.* 20 millim.

Sect. II. Metathorax without crest; fore wing with the termen evenly curved.

A. Fore wing ochreous tinged with rufous..... *rotundipennis.*
B. Fore wing pale olive irrorated with silvery scales ..... *acidalica.*

5319. Toana rotundipennis, n. sp.

♂. Head, thorax, and abdomen ochreous tinged with rufous; fore tibiæ and the tarsi blackish. Fore wing ochreous slightly tinged with rufous; a small round black discoidal spot; traces of an oblique brownish postmedial bar from costa and a point in submedian fold; some black points on costa towards apex; a terminal series of black points except towards tornus and a black

Fig. 48.—*Toana rotundipennis*, ♂. ♀.

point at middle of cilia. Hind wing ochreous slightly tinged with brown; a faint fuscous discoidal point and oblique brownish postmedial line; some slight dark points on termen except towards tornus. Underside of fore wing suffused with brown except at costa which is reddish; hind wing with the costa tinged with reddish, a black discoidal point and curved postmedial line.

Hab. Woodlark I. (*Meek*), 1 ♂ type. *Exp.* 12 millim.

5320. Toana acidalica, n. sp. (Plate CLV. fig. 9.)

♀. Head and thorax pale olive with a faint rufous tinge, the head suffused with fuscous. Fore wing pale olive irrorated with silvery scales; a slight blackish antemedial line strongly excurved below the cell; a blackish point in middle of cell and two small black discoidal spots; postmedial line blackish, excurved from costa to vein 4, then incurved and slightly waved, some black points beyond it on costa; a faint fuscous subterminal line slightly excurved at middle; a terminal series of prominent black points. Hind wing pale olive irrorated with silvery scales; a black discoidal point; traces of a curved minutely waved postmedial line; a faint curved subterminal shade; a terminal series of prominent black points; the underside suffused with brown, a faint dark discoidal bar.

Hab. Sierra Leone (*Clements*), 1 ♀ type. *Exp.* 16 milllm.

Genus **METACAUSTA**, nov.

Type, *M. ustata*.

Proboscis fully developed; palpi upturned, slender, the 2nd joint reaching about to vertex of head, the 3rd moderate; frons smooth; eyes large, round;

antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled, the spurs long; abdomen without crests. Fore wing with the apex produced and acute, the termen excised below apex and excurved at middle, not crenulate; vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 stalked. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5321. Metacausta ustata.

Tathodelta ustata, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 448 (1897).

♂. Head black-brown with some rufous on vertex; thorax ochreous tinged with rufous; fore and mid legs in front and the tarsi suffused with dark brown: abdomen ochreous tinged with rufous, the terminal half dorsally dark brown. Fore wing ochreous

Fig. 49.—*Metacausta ustata*, ♂. $\frac{3}{2}$.

tinged with rufous and irrorated with a few black scales, the costal, inner, and terminal areas tinged with purplish brown; an indistinct sinuous antemedial line with black points at the veins; black points in middle of cell and on discocellulars; a rather diffused medial line excurved below costa and incurved below lower angle of cell; postmedial line slightly defined on outer side by ochreous, excurved below costa, then minutely dentate, incurved below vein 4, some pale points beyond it on costa; subterminal line pale ochreous, dentate, angled outwards at veins 7 and 4, incurved at discal fold where there is a blackish patch beyond it; a terminal series of prominent black points; cilia reddish ochreous irrorated with black. Hind wing ochreous suffused with rufous and slightly irrorated with black; a slight blackish antemedial line; a small black discoidal spot; postmedial line slightly defined on outer side by ochreous, minutely waved; subterminal line ochreous, minutely waved, excurved below vein 7 and at middle and with black band before it from vein 4 to inner margin, some black suffusion beyond it between vein 4 and submedian fold; a terminal series of prominent black points; cilia reddish ochreous irrorated with black; the underside without rufous tinge.

Hab. Assam, Khásis, 1 ♂ type. *Exp.* 24 millim.

Genus CERYNEA.

	Type.
Cerynea, Wlk. xiv. 878 (1859)	*cephalotis*.
Obana, Wlk. xxiv. 1103 (1862)	*trapezoidalis*.
Phanaspa, Wlk. xxxiv. 1211 (1865), nec p. 1192	*thermesialis*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head, rather broadly scaled in front and fringed behind with hair towards extremity, the 3rd moderate; frons smooth; eyes large, round; antennæ of male with cilia and bristles; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled; abdomen without crests. Fore wing with the apex slightly produced and acute, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 shortly stalked or from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Patagia of male with tuft of very long hair from upper edge reaching to 2nd segment of abdomen; the fore tibiæ dilated and hollowed out, forming a double chamber divided by a membranous wall.

A. Frons of male hollowed out; antennæ with the basal joint dilated, with tuft of scales in front and angular projection on inner side, the basal joints of shaft thickened.

a. Fore wing of male with a lobe at base of costa with small excision beyond it.

5322. Cerynea trogobasis, n. sp.

♂. Head white; palpi black-brown towards base and irrorated with black-brown towards tips; antennæ with the incisions of joints blackish on inner side; thorax and abdomen white tinged with pale rufous, the latter with slight white segmental lines on

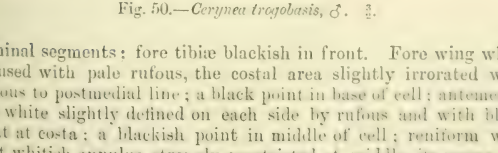

Fig. 50.—*Cerynea trogobasis*, ♂. $\frac{2}{3}$.

terminal segments: fore tibiæ blackish in front. Fore wing white suffused with pale rufous, the costal area slightly irrorated with fuscous to postmedial line; a black point in base of cell; antemedial line white slightly defined on each side by rufous and with black point at costa; a blackish point in middle of cell; reniform with faint whitish annulus strongly constricted at middle, its upper and lower parts filled in with small black spots; traces of a sinuous rufous line from lower angle of cell to inner margin; postmedial

line white with black point on its inner side at costa, strongly bent outwards below costa, then reduced to a series of white points with minute dark points before them, incurved below vein 4, some whitish points beyond it on costa; a faint minutely waved whitish subterminal line, angled outwards at veins 7 and 4, then incurved; a series of blackish points with white points before them just before termen; a terminal series of dark striæ with white points beyond them at base of cilia. Hind wing whitish suffused with rufous and slightly irrorated with black; a black discoidal point defined by whitish; postmedial line formed of slight white lunules with dark points before them, somewhat excurved at middle; a series of blackish points with white points before them just before termen; a fine dark terminal line with white points beyond it at base of cilia; the underside white with a faint flesh tinge, a blackish point at lower angle of cell and a series just before termen.

Hab. Queensland, Townsville (*Dodd*), 1 ♂ type. *Exp.* 22 millim.

b. Fore wing of male normal.

5323. Cerynea contentaria.

Ephyra contentaria, Wlk. xxii. 639 (1861); Hmpsn. Moths Ind. ii. p. 346.
Chusaris punctilinealis, Wlk. xxxiv. 1175 (1865); Hmpsn. Ill. Het. B. M. ix. p. 124, pl. 167. f. 27.

Head white; palpi black-brown towards base and irrorated with black-brown towards tips; antennæ with the incisions of joints blackish on inner side; thorax and abdomen white tinged with rufous, the latter irrorated with fuscous, the terminal segments

Fig. 51.—*Cerynea contentaria*, ♂. $\frac{2}{3}$.

suffused with fuscous leaving white segmental lines; fore tibiæ blackish in front. Fore wing white suffused with rufous and slightly irrorated with blackish, the costal edge blackish towards base; a black point in base of cell; antemedial line double, brown filled in with white and with black point at costa, waved; a blackish point in middle of cell; reniform with whitish annulus slightly defined on inner side by brown, strongly constricted at middle and with small black spots in its upper and lower parts; traces of a sinuous rufous line from lower angle of cell to inner margin; postmedial line white slightly defined on each side by

brown and with black striga on its inner side at costa, bent outwards below costa, rather punctiform to vein 4, then incurved and sinuous, some whitish points with blackish points between them beyond it on costa; subterminal line whitish defined on outer side by brown suffusion, excurved below vein 7 and at middle; a series of blackish points with whitish points before them just before termen; a fine dark terminal line. Hind wing whitish suffused with rufous and irrorated with black; a black point defined by whitish at lower angle of cell; postmedial line white defined on inner side by fuscous, punctiform, bent inwards to costa and incurved below vein 2; a series of blackish points with whitish points before them just before termen; a fine blackish terminal line; the underside whitish slightly irrorated with brown, a black point at lower angle of cell, traces of curved postmedial and subterminal lines and a series of blackish points before termen.

Hab. Punjab, Kangra (*Hocking*), 1 ♂, Manpuri, 1 ♀; Madras, Nilgiris (*Hampson*), 3 ♂; Ceylon (*Templeton*, *Verbury*), 1 ♂, 2 ♀ type *punctilinealis*, Puttalam (*Pole*), 2 ♀; Nicobars (*Rogers*), 1 ♀; Borneo, Sarawak, type † ♂ in Mus. Oxon. *Exp.* 16–22 millim.

B. Male with the frons not hollowed out; the antennæ normal.
a. Male with tuft of hair between antennæ recurved over vertex of head.
*a*¹. Both wings with some rough hair on basal inner area.

5324. Cerynea rhodotrichia, n. sp.

♂. Head, thorax, and abdomen ochreous tinged with rufous, the last with some fuscous irroration except towards base; palpi with some fuscous at sides; fore tibiæ fuscous. Fore wing ochreous tinged with rufous and irrorated with black, the terminal area

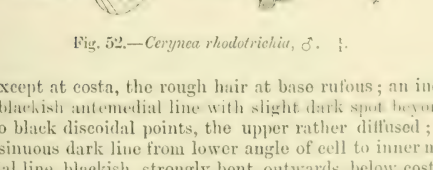

Fig. 52.—*Cerynea rhodotrichia*, ♂. ½.

darker except at costa, the rough hair at base rufous; an indistinct sinuous blackish antemedial line with slight dark spot beyond it in cell; two black discoidal points, the upper rather diffused; an indistinct sinuous dark line from lower angle of cell to inner margin; postmedial line blackish, strongly bent outwards below costa, then dentate, bent inwards below vein 3, some whitish points with minute black streaks between them beyond it on costa; subterminal line ill-defined, yellowish, slightly angled outwards below vein 7 and excurved at middle; a series of black points just before termen and fine black terminal line. Hind wing ochreous tinged

with rufous and irrorated with black, the terminal area darker; a black discoidal point; indistinct sinuous blackish medial and postmedial lines; an indistinct minutely waved blackish subterminal line; a series of black points just before termen and fine waved black terminal line; the underside whitish irrorated with brown, a black discoidal bar and minutely waved postmedial line.

Hab. Br. E. Africa, Kikuyu, Nairobi (*Crawshay*), 1 ♂ type. *Exp.* 22 millim.

b^1. (*Phanaspa*). Fore wing with some rough hair on basal inner area; hind wing normal.
a^2. Fore wing fiery red ..... *ignealis.*
b^2. Fore wing yellowish suffused with rufous ..... *thermesialis.*

5325. Cerynea ignealis, n. sp. (Plate CLV. fig. 10.)

♂. Head, thorax, and abdomen rufous, the last irrorated with fuscous; antennæ whitish ringed with fuscous; palpi blackish at sides; fore tibiæ blackish. Fore wing fiery red irrorated with black, the costa tinged with brown, the terminal area suffused with brown at discal fold and on inner area; antemedial line blackish, oblique from costa to just below the cell, a blackish spot beyond it in cell; two black discoidal points with a blackish bar before them; postmedial line black, bent outwards below costa, then minutely dentate and produced to white points on the veins, incurved below vein 4, some black points beyond it on costa; faint traces of a waved subterminal line; a series of black points just before termen; a fine black terminal line; cilia brown. Hind wing fiery red irrorated with black, the termen tinged with brown; two black discoidal points; postmedial line slight, black, minutely dentate and with white points beyond it on the veins, bent inwards to inner margin, where there is a more distinct white mark on its outer edge; a series of black points just before termen and a fine waved black terminal line; the underside whitish tinged with rufous and irrorated with brown, a black discoidal bar and crenulate postmedial line.

Hab. Br. E. Africa, N'gong (*Crawshay*), 1 ♂ type. *Exp.* 28 millim.

5326. Cerynea thermesialis.

Phanaspa thermesialis, Wlk. xxxiv. 1211 (1865).

Head, thorax, and abdomen pale rufous; palpi with some fuscous behind; fore tibiæ fuscous in front. Fore wing yellowish suffused with rufous and slightly irrorated with blackish; a blackish point in base of cell and subbasal dark striga from costa; antemedial line blackish, incurved at median nervure and vein 1; a dark spot in middle of cell; two small blackish discoidal spots ringed with yellowish; a faint brownish medial line, excurved from costa to just beyond the cell, slightly incurved at discal fold and incurved

below lower angle of cell; postmedial line blackish, minutely dentate, angled slightly inwards at discal fold and below vein 3, some brownish suffusion beyond it and some pale points on costa with minute whitish streaks between them; subterminal line pale, excurved at middle and angled inwards at discal and submedian folds; a series of blackish points just before termen; a fine waved dark terminal line and fine pale line at base of cilia. Hind wing yellowish suffused with rufous and irrorated with blackish, the terminal area tinged with brown; two black discoidal points; postmedial line blackish, minutely waved; a series of blackish

Fig. 53.—*Cerynea thermesialis*, ♂. $\frac{2}{3}$.

points just before termen: a fine waved dark terminal line and pale line at base of cilia; the underside whitish, irrorated with brown especially on terminal area, a black discoidal striga, two minutely waved postmedial lines and a series of points before termen.

Hab. Br. E. Africa, Kikuyu (*Crawshay*), 1 ♂; Mashonaland, Salisbury (*Marshall*), 1 ♀; Gazaland, Chirinda Forest (*Marshall*), 1 ♀; Transvaal, White R. (*Cooke*), 1 ♀; Natal, Malvern (*Marshall*), 1 ♀, Durban (*Gueinzius*, *Leigh*), 1 ♂, 1 ♀ type. *Exp.* 20–24 millim.

b. Male without tuft of hair between antennæ recurved over vertex of head.

*a*¹. Both wings of male with some rough hair on basal inner area.

5327. Cerynea trichobasis, n. sp.

Head, thorax, and abdomen pale ochreous tinged with rufous; fore tibiæ fuscous. Fore wing pale ochreous tinged with rufous in parts, especially on basal and terminal areas, the inner area slightly irrorated with black; the male with tuft of brownish hair at base of inner margin; an indistinct sinuous dark antemedial line with black point at costa and black point just beyond it in cell; two black discoidal points with a black point just before them in discal fold; a rufous medial line, bent outwards below costa, incurved at discal fold, bent inwards below vein 4, then waved; postmedial line blackish, strongly bent outwards and almost obsolete below costa, then minutely waved, incurved below vein 4, some dark points beyond it on costa; traces of a pale yellowish subterminal line, angled inwards and with dark suffusion beyond it at discal

fold, incurved below vein 3; a series of small black spots just before termen. Hind wing pale ochreous tinged in parts with rufous and slightly irrorated with black; the male with tuft of brown hair below base of cell; two black discoidal points; postmedial line black, incurved at discal fold and bent inwards below vein 3; a minutely waved yellowish subterminal line defined on each side by rufous suffusion; a series of black points just before

Fig. 54.—*Cerynea trichobasis*, ♂. $\frac{1}{1}$.

termen; the underside yellowish white, the costal area from middle and the apical half of terminal area tinged with brown, a black discoidal striga, faint medial line, and curved postmedial line.

Ab. 1. Both wings with the terminal area browner.

Hab. Sierra Leone (*Clements*), 2 ♂, 2 ♀ type; Gold Coast, Kumasi (*Whiteside*), 1 ♀; Sudan, Blue Nile (*Flower*), 1 ♀. *Exp.* 18–20 millim.

b^1. Fore wing of male with some rough hair on inner basal area; hind wing normal.
  a^2. Fore wing suffused with purple-brown, typically with yellow apical patch ..... *endotrichalis.*
  b^2. Fore wing purple-brown, the base and an apical patch yellow ..... *flavibasalis.*
  c^2. Fore wing with the costal and terminal areas purple-brown, the rest of wing yellow suffused with fiery red..... *ignearia.*
  d^2. Fore wing yellow suffused with fiery red.
    a^3. Fore wing with the costal area purple-brown... *rubra.*
    b^3. Fore wing with the costal area not purple-brown.
      a^4. Fore wing with small black spot in middle of cell and large subterminal spot above vein 1. *perrubra.*
      b^4. Fore wing with two black discoidal points and without subterminal spot ..... *ustula.*

5328. Cerynea endotrichalis, n. sp.

Head, thorax, and abdomen brownish red, the last suffused with fuscous except at base; palpi and fore legs blackish. Fore wing brown-red slightly mixed with yellowish and irrorated with black; traces of a blackish antemedial line, oblique from costa to median nervure and with blackish spot beyond it in cell; a curved black discoidal striga slightly defined on outer side by yellowish; a faint oblique dark line from lower angle of cell to inner margin; post-

medial line indistinct, dark, strongly bent outwards below costa, then oblique, with minute white points beyond it on the veins, some yellowish points beyond it on costa; an oblique yellow apical patch irrorated with red-brown, a series of black points just before termen and fine black terminal line; a fine whitish line at base of cilia. Hind wing brown-red slightly mixed with yellowish and irrorated with black; two black discoidal points; postmedial line slight, black, minutely waved with white points beyond it on the veins and distinct white spot at inner margin; a fine waved black

Fig. 55.—*Cerynea endotrichalis*, ♂. ½.

terminal line with points at the interspaces; a fine white line at base of cilia; the underside white thickly irrorated with fuscous brown, a black discoidal bar.

Ab. 1. Fore wing without the yellowish apical patch.—Cape Colony.

Hab. Br. E. Africa, E. Quaso (*Betton*), 1 ♂, 1 ♀ type; Cape Colony (*Miss F. Barrett*), 1 ♀. *Exp.* 24–28 millim.

5329. **Cerynea flavibasalis**, n. sp. (Plate CLV. fig. 11.)

♀. Head and tegulæ purple-brown mixed with some yellowish; thorax yellowish tinged with rufous; abdomen with the basal segments yellowish irrorated with some red and black, the terminal segments deep purple-brown; pectus, legs, and ventral surface of abdomen fuscous brown with a greyish tinge. Fore wing deep chocolate-brown, the basal area except towards costa yellow slightly irrorated with red and black; traces of a sinuous brown antemedial line; two black discoidal points with yellow suffusion between and beyond them; postmedial line slight, blackish and strongly bent outwards below costa, then reduced to a series of black points with minute whitish points beyond them and more prominent point at vein 6, incurved at discal fold and oblique below vein 4; an oblique yellow patch from apex to vein 6; a fine waved black terminal line with series of small black spots in the interspaces. Hind wing deep chocolate-brown, the basal area yellow slightly irrorated with red and black; a faint minutely crenulate whitish postmedial line with blackish points on its inner edge, excurved at middle; a fine waved black terminal line with series of small black spots in the

interspaces; the underside with the basal area whitish, the rest of wing fuscous, a dark discoidal striga and postmedial line defined on outer side by grey.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♀ type. *Exp.* 22 millim.

5330. Cerynea igniaria. (Plate CLV. fig. 12.)

Hypena igniaria, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 707 (1898).

Head, thorax, and abdomen greyish brown, the last with some fiery-red and yellowish on dorsum towards base; pectus, hind legs, and ventral surface of abdomen whitish tinged with brown. Fore wing yellow, the costal and terminal areas greyish brown, the basal area suffused with fiery red except towards costa, the medial area irrorated with red, the veins of terminal area streaked with red and a yellow patch suffused with red on termen below apex; traces of a sinuous whitish antemedial line; a blackish point in middle of cell and two discoidal points; an oblique sinuous line from lower angle of cell to inner margin; postmedial line indistinct, whitish defined on each side by fiery red, bent outwards below costa, then minutely waved, incurved below vein 4, some white points beyond it on costa; a waved reddish subterminal line slightly defined on each side by fuscous; a fine waved black terminal line with points in the interspaces; cilia brown with a fine whitish line at base. Hind wing with the basal area yellow irrorated with fiery red, the terminal area grey-brown suffused in parts with red and irrorated with fuscous; a black discoidal point; postmedial line white defined on each side by fiery red, waved; a diffused curved somewhat dentate blackish subterminal line; a fine waved black terminal line with points in the interspaces; cilia brown with a fine white line at base; the underside whitish suffused and irrorated with brown except the area between the curved medial and postmedial lines.

Hab. Assam, Khásis, 1 ♂ type; Straits Settlements, Johore (*Annandale*), 1 ♀. *Exp.* 24 millim.

5331. Cerynea rubra. (Plate CLV. fig. 13.)

Cerynea rubra, Swinh. A. M. N. H. (7) xv. p. 154 (1905).

♂. Head, thorax, and abdomen deep chocolate red-brown, the last dorsally fiery red towards base. Fore wing yellow suffused with fiery red, the costal area chocolate-brown; an oblique dark antemedial line from cell to inner margin; two blackish discoidal points; postmedial line yellowish white, bent outwards below costa, incurved below vein 4 and with dark patch beyond it on inner margin; some white points beyond it on costa; traces of a pale dentate subterminal line; a fine waved black terminal line with small spots in the interspaces; cilia chequered red and brown. Hind wing yellow suffused with fiery red, the basal area tinged with purplish red; a black discoidal striga; postmedial line yellow

defined on each side by fiery red, minutely waved, oblique from costa to vein 3, an oblique black bar beyond it from costa and a small spot in submedian fold; a subterminal dark shade from apex to vein 6 and some brown suffusion towards tornus; a fine waved black terminal line with small spots in the interspaces; cilia brown intersected with red and with fine pale line at base; the underside yellowish white irrorated with brown, a dark discoidal spot and diffused medial, postmedial, and subterminal shades.

Hab. Borneo, Malang (*Shelford*), 1 ♂ type. *Exp.* 24 millim.

*5332. Cerynea perrubra, n. n. (Plate CLV. fig. 14.)

Phanaspa rubra, Beth.-Baker, Nov. Zool. xiii. p. 216 (1906), nec Swinh. 1905.

♂. Head, thorax, and abdomen fiery red mixed with yellow; palpi and frons black irrorated with white; abdomen with blackish segmental lines at middle and extremity; pectus, legs, and ventral surface of abdomen whitish. Fore wing yellow, mostly suffused and irrorated with fiery red, the antemedial and medial areas with more yellow, the costal edge blackish; a slight waved subbasal red line from costa to inner margin; antemedial line minutely waved, oblique from costa to submedian fold, then erect; a small black spot in middle of cell and faint blackish discoidal spot; a waved red postmedial line bent outwards below costa and below vein 4 incurved to lower angle of cell; a diffused maculate red subterminal line with slight blackish marks on it and a large black spot before it in submedian interspace; a series of small black terminal spots. Hind wing whitish, almost entirely suffused and irrorated with fiery red; two black discoidal points; an indistinct, rather maculate postmedial line excurved to vein 3, then incurved; a curved subterminal series of blackish spots; a terminal series of small black spots; the underside whitish faintly tinged with red, a slight discoidal lunule and indistinct sinuous red postmedial line.

Hab. Br. New Guinea, Aroa R. (*Meek*), type † ♂ in Coll. Rothschild. *Exp.* 24 millim.

5333. Cerynea ustula. (Plate CLV. fig. 15.)

Zurobata ustula, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 450 (1897).

♂. Head blackish; thorax and abdomen yellowish tinged with rufous; fore tibiæ fuscous. Fore wing yellowish suffused with rufous and irrorated with a few black scales, the costal edge fuscous; an indistinct sinuous rufous antemedial line; two black discoidal points; an indistinct diffused rufous medial line, bent outwards below costa, slightly incurved at discal fold and bent inwards below vein 3; an indistinct pale postmedial line slightly defined on each side by rufous, bent outwards below costa, then minutely waved, incurved below vein 4 and with blackish spot beyond it at inner margin, some yellowish points beyond it on

costa; an indistinct dentate yellowish subterminal line, angled inwards and with fuscous suffusion beyond it at discal fold; a terminal series of small black spots. Hind wing yellowish mostly suffused with red and slightly irrorated with black; two black discoidal points; a faint brownish medial shade; a faint minutely waved yellowish postmedial line defined on each side by black striæ at inner margin; traces of a minutely dentate yellowish subterminal line; a terminal series of small black spots; the underside whitish with black discoidal striga and faint brownish medial, postmedial, and subterminal shades.

Hab. Madras, Palnis (*Campbell*), 1 ♂; Ceylon, Nawalapitiya (*Pole*), 1 ♂ type; Andamans, 1 ♂. *Exp.* 22–24 millim.

c^1. (*Cerynea.*) Both wings of male normal.
  a^2. Fore wing olive-brown irrorated with silvery scales ..... *argentescens.*
  b^2. Fore wing ochreous suffused with rufous.
    a^3. Fore wing with black patch beyond postmedial line at inner margin ..... *disjunctaria.*
    b^3. Fore wing without black patch beyond postmedial line at inner margin.
      a^4. Fore wing with oblique black mark from termen just below apex to subterminal line at discal fold ..... *omphisalis.*
      b^4. Fore wing with slight oblique black bar from apex ..... *ochreana.*

5334. Cerynea argentescens, n. sp.

♂. Head blackish; thorax and abdomen pale brown tinged with rufous, the tegulæ whitish; pectus, legs, and ventral surface of abdomen whitish tinged with rufous, the fore tibiæ fuscous in front. Fore wing pale olive-brown irrorated with silvery scales and with

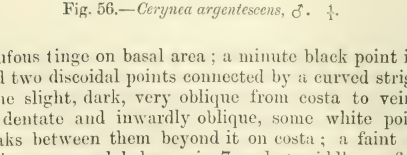

Fig. 56.—*Cerynea argentescens*, ♂. ½.

a slight rufous tinge on basal area; a minute black point in middle of cell and two discoidal points connected by a curved striga; postmedial line slight, dark, very oblique from costa to vein 6, then minutely dentate and inwardly oblique, some white points with dark streaks between them beyond it on costa; a faint pale subterminal line, excurved below vein 7 and at middle; a fine waved black terminal line with small black spots in the interspaces. Hind wing pale olive-brown with a silvery gloss; two black discoidal points; a faint curved minutely waved whitish postmedial line with

traces of black points on its inner edge; a terminal series of small black spots; cilia pale rufous; the underside greyish, the terminal half tinged with brown, a minute dark discoidal point.

♀. Fore wing more tinged with rufous to postmedial line, the terminal area browner; hind wing with the inner half tinged with rufous to near termen.

Hab. Pulo Laut (*Doherty*), 1 ♂, 1 ♀ type. *Exp.* 22 millim.

5335. Cerynea disjunctaria. (Plate CLV. fig. 16.)

Acidalia disjunctaria, Wlk. xxiii. 766 (1861).
Nechesia mundicolaria, Wlk. xxiv. 1104 (1862).

Head black-brown; thorax and abdomen pale ochreous tinged with rufous; fore tibiæ fuscous. Fore wing pale ochreous tinged with rufous; antemedial black points on costa and in discal and submedian folds with a faint line from the last to inner margin near base; two black discoidal points with one just before them in discal fold; a faint brownish medial line excurved beyond the cell; postmedial line fine, dark, defined on outer side by whitish, bent outwards below costa, then minutely dentate, slightly angled inwards at discal fold and incurved below vein 4, a black patch beyond it on inner margin and some white points on costa with minute black streaks between them; a faint pale waved subterminal line slightly defined on outer side by blackish, angled inwards at discal fold; a fine waved black terminal line with small spots in the interspaces; cilia fuscous. Hind wing pale ochreous tinged with rufous and slightly irrorated with black; a black discoidal point; an indistinct waved dark medial line; postmedial line pale slightly defined on each side by brown, minutely waved, excurved at middle; a curved blackish subterminal line; a fine waved black terminal line with small spots in the interspaces; the underside pale suffused with brown especially on terminal area.

Hab. Borneo, Sarawak (*Wallace*), 1 ♂. *Exp.* 24 millim. Type † ♂, type † ♀ *mundicolaria* in Mus. Oxon.

*5336. Cerynea omphisalis. (Plate CLV. fig. 17.)

Cerynea omphisalis, Wlk. xix. 878 (1859).

♂, Head blackish; thorax and abdomen ochreous white tinged with rufous; fore tibiæ dark brown. Fore wing ochreous white tinged with rufous and slightly irrorated with fuscous; antemedial line represented by blackish points on costa and below the cell; two black discoidal points; postmedial line with blackish point at costa, then hardly traceable, pale, oblique to vein 6, beyond the cell defined by some black scales on inner side and a black spot on outer, oblique below vein 4; two blackish points on costa towards apex; subterminal line indistinct, pale, incurved at discal fold, excurved at middle, then slightly waved; a diffused irregular oblique black mark from just below apex to the subterminal line

at discal fold; a series of black points just before termen and some black striæ on termen. Hind wing ochreous white tinged with rufous and slightly irrorated with fuscous; a pale waved post-medial line defined on each side by rufous and with slight blackish mark on its outer edge at vein 6; subterminal line indistinct, pale, somewhat dentate and angled inwards below costa and at submedian fold, slightly defined on outer side by fuscous, the area beyond it browner; a series of black points just before termen and a fine waved black terminal line; the underside yellowish white irrorated with brown, a slight dark discoidal striga, indistinct waved post-medial and subterminal lines, and a series of black points before termen.

Hab. Borneo, Sarawak (*Wallace*), type † ♂ in Mus. Oxon. *Exp.* 20 millim.

*5337. Cerynea ochreana. (Plate CLV. fig. 18.)

Dahlia ochreana, Beth.-Baker, Nov. Zool. xv. p. 202 (1908).

♂. Head, thorax, and abdomen brownish ochraceous; palpi black, the tips of 2nd and 3rd joints white; pectus in front and fore legs suffused with black; abdomen with some black irroration at base of dorsum. Fore wing ochreous tinged with rufous and slightly irrorated with black; a subbasal black point on costa with a blackish streak beyond it; antemedial black points on costa and in cell; a white point defined by black at lower angle of cell with a dark shade above it on discocellulars; a black point on middle of costa; postmedial line formed by fuscous points and striæ slightly defined on outer side by whitish, oblique from costa to vein 3, then slightly bent inwards, some black points beyond it on costa; an oblique black bar from apex; subterminal line very indistinct, pale, waved, faintly defined on inner side by fuscous towards inner margin; a fine waved black terminal line with black points in the interspaces. Hind wing ochreous tinged with rufous and sparsely irrorated with black scales; a black point at lower angle of cell; a medial series of slight blackish points; traces of a subterminal series of blackish points with some fuscous suffusion before it on inner area; a terminal series of black points; the underside paler, a diffused fuscous subterminal band at costa and from discal fold to inner margin.

Hab. Br. N. Guinea, Dinawa (*Pratt*), type † ♂ in Coll. Bethune-Baker. *Exp.* 22 millim.

Sect. II. (*Obana*). Patagia of male without tuft of long hair; fore tibiæ not dilated and hollowed out but fringed with long hairs.

*5338. Cerynea vagipennata.

Obana vagipennata, Wlk. xxiv. 1103 (1862).

♂. Head and thorax pale ochreous slightly tinged with brown; palpi blackish at sides except towards tips; antennæ ringed with

blackish; abdomen pale ochreous slightly irrorated with black-brown. Fore wing pale ochreous sparsely irrorated with black-brown scales; antemedial black-brown points on costa and in cell; two discoidal points with a point above them on costa and others below them in submedian fold and on inner margin; a sinuous postmedial series of points with a spot above vein 1 and bar beyond it; small subterminal spots below veins 8, 6 and 2, and a series of

Fig. 57.—*Cerynea vagipennata*, ♂. ½.

small spots just before termen; cilia with a series of dark points at tips. Hind wing pale ochreous sparsely irrorated with black-brown; two black-brown discoidal points with a pair of points below them just above inner margin; a subterminal series of small spots with four small spots before it between vein 4 and inner margin; a fine waved black-brown terminal line with series of small spots at the interspaces; the underside pale ochreous with indistinct waved brown medial line and somewhat diffused curved subterminal line.

Hab. Borneo, Sarawak (*Wallace*), type† ♂ in Mus. Oxon. *Exp.* 22 millim.

Sect. III. Male without secondary sexual characters.

A. Fore wing black-brown with ochreous fascia on costa ... *flavicostata.*
B. Fore wing purplish red-brown.
  a. Fore wing with white streaks on the veins beyond upper angle of cell.
    *a*¹. Fore wing with the postmedial line excurved from below costa to vein 4, then bent inwards to below angle of cell ... *[illegible].*
    *b*¹. Fore wing with the postmedial line angled outwards below costa, then incurved ... *fissilinea.*
  b. Fore wing without white streaks on the veins beyond upper angle of cell ... *porphyrea.*
C. Fore wing yellow, the terminal area rufous with grey patches ... ...
D. Fore wing white tinged with green ... ... *virescens.*

*5339. Cerynea flavicostata. (Plate CLV. fig. 19)

Mestleta flavicostata, Holl. Psyche, vii. p. 113, pl. iv. f. 21 (1894).

♂. Head, thorax, and abdomen black-brown; a pale ochreous band across prothorax; pectus, legs, and ventral surface of abdomen ochreous white, the fore and mid legs brownish in front. Fore

wing black-brown with a chocolate tinge; an ochreous fascia on costal area narrowing to apex; traces of a minutely waved dark postmedial line oblique towards costa and below vein 4. Hind wing uniform black-brown with a chocolate tinge; the underside purplish brown tinged with grey and irrorated with whitish.

Hab. Gaboon, Ogowé R., type† in Coll. Holland. *Exp.* 24 millim.

5340. Cerynea plagiostola. (Plate CLV. fig. 20.)

Zurobata plagiostola, Hmpsn. Moths Ind. iv. p. 518 (1896).

♀. Head red-brown slightly mixed with grey; thorax brown suffused with violaceous white; abdomen purplish red tinged with grey, the base suffused with violaceous white, the 2nd segment with white line; pectus, legs, and ventral surface of abdomen brownish white, the tibiæ with a purplish tinge. Fore wing chocolate-red, the costal area broadly suffused with violaceous white to subterminal line, extending to inner margin on basal area; a slight curved white subbasal line; antemedial line white, angled outwards below costa and at median nervure and inwards in cell, oblique below the cell; a black point in middle of cell; reniform defined by white, inwardly oblique, triangular, a white streak beyond its upper extremity; postmedial line fine, white, strongly excurved from costa to vein 4, then bent inwards to just below lower angle of cell and erect to inner margin, some white points beyond it on costa; subterminal line slight and whitish from costa to vein 6, angled outwards at vein 7, then an oblique white streak to tips of cilia at vein 4, then indistinct, dark, waved; a series of black points before termen, defined on inner side by a white line from apex to discal fold, bent outwards on to cilia at apex; cilia with a fine pale line at base. Hind wing chocolate-red, the basal inner area violaceous white; an indistinct curved dark antemedial line; postmedial line white, excurved to vein 4, then incurved; traces of a pale waved subterminal line; a series of black points just before termen; a fine pale line at base of cilia; the underside ochreous white suffused with red, a series of black points before termen.

Hab. Bhután, 2500′ (*Dudgeon*), 1 ♀ type. *Exp.* 26 millim.

5341. Cerynea fissilinea, n. sp.

♂. Head, thorax, and abdomen rufous; a pure white mark between antennæ; the meso- and metathorax with some black scales; pectus, legs, and ventral surface of abdomen white slightly tinged with rufous. Fore wing rufous, the costal area irrorated with fuscous brown; a fine oblique white subbasal line from costa to base at submedian fold; antemedial line fine, white defined on outer side by black scales, oblique, straight; a black and white discoidal bar with oblique white line from it to inner margin; postmedial line white, acutely angled outwards below costa, then

strongly incurved, a white streak from its angle to termen; subterminal line white and oblique from costa to vein 6 where it terminates; a terminal series of black points. Hind wing pale rufous; postmedial line slight, whitish, excurved from costa to

Fig. 58.—*Cerynea fissilinea*, ♂. ½.

vein 4, then incurved; traces of a curved whitish subterminal line with some black irroration on its outer edge, incurved at submedian fold; a terminal series of black points; the underside grey-white faintly tinged with rufous, a rufous discoidal bar and terminal series of blackish points.

Hab. Madagascar, Betsileo (*Cowan*), 1 ♂ type. *Exp.* 22 millim.

5342. Cerynea porphyrea, n. sp. (Plate CLV. fig. 21.)

♂. Head, thorax, and abdomen whitish suffused with rufous; the pectus, legs, and ventral surface of abdomen white. Fore wing rufous slightly irrorated with black; traces of an inwardly oblique sinuous black antemedial line; a small black discoidal spot; postmedial line black and oblique from costa to vein 6, then faint, whitish slightly defined on inner side by brown and incurved below vein 4; traces of a rather punctiform whitish subterminal line with some whitish beyond it at apex; a terminal series of minute black points. Hind wing rufous; a slight fuscous discoidal point; postmedial line faint, whitish slightly defined on each side by brown, oblique, straight; a terminal series of black points; the underside white tinged with flesh pink, a black discoidal point.

Hab. Madagascar, Betsileo (*Cowan*), 3 ♂ type. *Exp.* 22 millim.

5343. Cerynea indecisa. (Plate CLV. fig. 22.)

Acontia indecisa, Wlk. Journ. Linn. Soc., Zool. vii. p. 50 (1864).

♀. Head, thorax, and abdomen yellow faintly tinged with rufous and irrorated with a few black scales. Fore wing yellow irrorated with a few black scales: a subbasal blackish point in cell; a small antemedial blackish spot just below costa; a black point in middle of cell; reniform represented by a blackish bar on inner side and two points on outer; medial line formed by a diffused blackish bar from costa to reniform and slight oblique line from lower angle of cell to inner margin with small black spot at submedian fold; postmedial line arising at vein 7, black-brown defined on inner side by white, incurved at discal fold and below vein 4,

the area beyond it rufous to the subterminal line which is black, arising from apex, angled outwards to termen at vein 7, strongly angled inwards at discal fold and outwards to termen at vein 4, then incurved, the area beyond it white irrorated with black-brown; a series of black striæ just before termen; a fine black terminal line; cilia white mixed with black. Hind wing reddish brown, darker towards termen; cilia brownish white; the underside whitish tinged with brown and irrorated with black, a series of black striæ just before termen.

Hab. Sarawak (*Wallace*), type † ♀ in Mus. Oxon.; Borneo, Sandakan (*Pryer*), 1 ♀. *Exp.* 22 millim.

5344. **Cerynea virescens**, n. sp. (Plate CLV. fig. 23.)

♂. Head and thorax white with a faint greenish tinge; palpi and antennæ blackish; pectus and legs blackish, the tarsi ringed with white; abdomen white tinged with ochreous brown. Fore wing white with a faint greenish tinge; a subbasal black spot on costa; antemedial line black, oblique, excurved below the cell and incurved above vein 1, a blackish streak before it on costa; a slight black discoidal lunule; postmedial line black, excurved beyond the cell, then incurved and again excurved at vein 1, two white points beyond it on costa with a black streak between them; subterminal line black, minutely dentate, from costa to discal fold; a waved black terminal line; cilia white mixed with fuscous. Hind wing white faintly tinged with brown; a waved black terminal line; cilia intersected with fuscous; the underside white irrorated with brown, an indistinct dark discoidal spot and curved postmedial line.

Hab. Cape Colony, Transkei (*Miss F. Barrett*), 1 ♂ type. *Exp.* 20 millim.

Genus **FARARA.**

Type.

Farara, Beth.-Baker, Nov. Zool. xv. p. 203 (1908)..... *pulchra.*

Proboscis fully developed; palpi upturned, slender, the 2nd joint reaching about to vertex of head, the 3rd moderate; frons smooth; eyes large, round; antennæ of male with fascicles of long cilia; thorax clothed almost entirely with scales, the pro- and metathorax with spreading crests; tibiæ slightly fringed with hair; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen excised below apex and towards tornus and excurved at middle; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from well above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

*5345. **Farara pulchra.**

Farara pulchra, Beth.-Baker, Nov. Zool. xv. p. 203 (1908).

♂. Head and thorax yellow, the head and tegulæ tinged with rufous, the patagia and metathorax with slight rufous streaks;

abdomen rufous with the basal crest yellow; pectus and ventral surface of abdomen yellowish white, the legs tinged with brown. Fore wing with the basal area, the cell and the costal area to beyond middle yellow, the costal edge rufous, the rest of wing pale purplish brown: three diffused sinuous rufous lines on basal area; a dark point in middle of cell; an oblique rufous discoidal bar defined at sides by white, its upper extremity produced; an indistinct oblique dark shade from lower angle of cell to inner margin; postmedial line red-brown with a fine white line on its outer edge, obsolescent on costal area, oblique to vein 6 where it is acutely angled outwards, incurved at discal fold, acutely angled outwards at vein 4, then strongly incurved and with a dark red-brown band beyond it before the subterminal line, which is whitish, incurved below costa and at discal fold, angled outwards at veins 6 and 4,

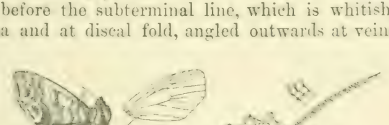

Fig. 59.—*Farara pulchra*, ♂. ½.

then strongly incurved, a dentate brownish shade beyond it from below costa to below vein 5 and a patch below vein 3; a series of blackish points just before termen connected by a line from below vein 7 to above 4 and towards tornus; a dark brown terminal line; cilia pale at base, dark brown at tips. Hind wing yellowish suffused with rufous, the terminal area pale, the inner margin white, the medial area irrorated with black; postmedial line red-brown with a fine white line on its outer edge followed by a rufous band, angled outwards below costa and strongly at middle, then incurved and bent outwards to tornus; the rufous band followed by the whitish subterminal line with some rufous suffusion beyond it; a dark striga before termen at discal fold and a dark patch angled inwards in submedian fold above tornus; a fine dark terminal line; the underside yellowish white with a series of black points just before tornus.

Hab. Br. N. Guinea, Dinawa (*Pratt*), type † ♂ in Coll. Bethune-Baker. *Exp.* 32 millim.

Genus **LOPHORUZA**, nov.

Type, *L. vacillatrix*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to or to above vertex of head and moderately scaled, the 3rd long or moderate; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ moderately fringed with hair; abdomen with dorsal series of small crests. Fore wing with the apex somewhat produced and acute, the termen evenly curved, crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8

to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Palpi with the 2nd joint reaching to well above vertex of head, the 3rd long and acuminate.

A. Fore wing with the costal area pale with oblique lower edge from apex to inner margin near base.
  a. Fore wing with white mark on subterminal line above middle.
    a^2. Wings black-brown tinged with grey ..... *longipalpis.*
    b^2. Wings red-brown or violaceous tinged with grey.
      a^2. Fore wing with orange patch before and beyond subterminal line below apex..... *albicostalis.*
      b^2. Fore wing with yellow points beyond the subterminal line below apex ..... *lunifera.*
  b. Fore wing without white mark on subterminal line above middle..... *diversalis.*
B. Fore wing with white streak from apex to inner margin near base leaving the costal area red-brown ..... *diagonalis.*

5346. Lophoruza longipalpis. (Plate CLV. fig. 24.)

Selenis longipalpis, Wlk. xxxiii. 1068 (1865); Hmpsn. Moths Ind. ii. p. 346.

♂. Head and thorax ochreous white mixed with some fuscous brown; abdomen black-brown with ochreous white band at base; pectus, legs, and ventral surface of abdomen ochreous white. Fore wing black-brown mixed with some grey, the costal area very broadly white suffused with ochreous, extending to inner margin on basal area and narrowing suddenly to a point at apex; traces of an ochreous antemedial line with blackish point at costa, very oblique below the cell to base of inner margin; two black discoidal points; traces of a curved ochreous antemedial line from costa to lower angle of cell; traces of an oblique ochreous postmedial line from costa to vein 6, then blackish defined on outer side by grey, incurved and minutely dentate below vein 4; subterminal line represented by black and white points above and below vein 7, an oblique white mark between veins 6 and 4, white points above and below vein 3 and an oblique bar to tornus, a series of black striæ just before termen slightly defined on outer side by white; a fine waved brown terminal line; cilia chequered ochreous and blackish. Hind wing black-brown mixed with grey, the base ochreous white with some ochreous on its outer edge; a black discoidal bar; an indistinct waved dark postmedial line; a subterminal series of ochreous white points; a series of black points before termen; cilia brown with some ochreous at base and tips; the underside whitish suffused with brown.

Hab. Burma, Moulmein (*Clerk*), 1 ♂ type. *Exp.* 26 millim.

5347. Lophoruza albicostalis.

Mestleta albicostalis, Leech, Entom. xxii. p. 65, pl. ii. f. 10 (1889).

Head and thorax white mixed with rufous; abdomen white, the

medial segments suffused with brown with the crests blackish; pectus, legs, and ventral surface of abdomen white faintly tinged with brown. Fore wing pale rufous, the costal area white to subterminal line, extending to inner margin on basal area, its lower edge angled at lower angle of cell, the costa slightly tinged with brown; two black discoidal points; postmedial line white from costa to vein 5, excurved below costa and slightly incurved at discal fold, below vein 5 very indistinct and strongly incurved, some white points beyond it on costa; subterminal line white with a black point before it below costa and small triangular black spots with yellow between them above and below vein 6, incurved between veins 7 and 4 with a brown band before it and yellow suffusion beyond it, angled outwards below veins 4, 3, then incurved; a series

Fig. 60.— *Lophoruza albicostalis*, ♂. ½.

of black points before termen; a fine black terminal line; cilia white, tinged with rufous towards apex and with some blackish at middle. Hind wing white slightly tinged with rufous, the base pure white; antemedial area suffused with rufous except at inner margin; a rufous discoidal striga; a slight dark postmedial line, incurved at discal fold, excurved at middle, then incurved; subterminal line white very slightly defined on inner side by blackish and with black bar before it at inner margin, slightly angled inwards at discal fold; a series of black points just before termen; a fine black terminal line; the underside white slightly irrorated with brown, a series of blackish points just before termen.

Hab. Centr. China, Ningpo, 1 ♂, 3 ♀ type, Foo-chau (*Leech*), 1 ♀. *Exp.* 28 millim.

5348. **Lophoruza lunifera.**

Mestleta lunifera, Moore, Lep. Ceyl. iii. p. 209, pl. 175. f. 3 (1885); Hmpsn. Moths Ind. ii. p. 345.

♂. Head and tegulæ pale rufous mixed with ochreous white; thorax ochreous white; abdomen greyish rufous with ochreous white band at base, the crests on medial segments blackish; pectus, legs, and ventral surface of abdomen ochreous white, the fore and mid tibiæ tinged with brown. Fore wing greyish rufous, the costal area white, tinged with rufous towards costa, narrowing to a point at apex, the white extending to inner margin on basal area; postmedial line brown, very indistinct and oblique from costa to vein 6, then incurved again, incurved and punctiform below vein 4; sub-

terminal line white and incurved from vein 7 to 4 where it is angled outwards, then slight, whitish, oblique, a small dentate black mark before it below vein 7 and yellowish points beyond it above and below vein 6, a blackish fascia from it to tips of cilia at vein 4; a series of black striæ just before termen; a fine waved black terminal line; cilia pale rufous, chequered with fuscous towards apex. Hind wing greyish rufous, the base ochreous white; a fine minutely dentate black postmedial line; subterminal line whitish defined on each side by black scales and with slight black marks before and beyond it towards inner margin, very minutely waved, a series of black points just before termen; a fine waved black terminal line; cilia pale rufous with a fine whitish line at base; the underside grey-white irrorated with fuscous, a blackish discoidal point, curved postmedial line, punctiform subterminal line, and series of black points before termen.

♀. Fore wing with the costal area more uniformly suffused with rufous.

Hab. N. India (*James*), 1 ♂; Bombay, Kanara, Karwar (*Bell*), 1 ♀; Ceylon, 1 ♀ type. *Exp.* 28–32 millim.

*5349. Lophoruza diversalis.

Bertula diversalis, Wlk. xxxiv. 1169 (1865); Swinh. Cat. Het. Mus. Oxon. ii. p. 68, pl. i. f. 19.

♀. Head and thorax ochreous mixed with rufous, the tegulæ irrorated with fuscous; abdomen whitish suffused with red-brown except at base and extremity; pectus, legs, and ventral surface of abdomen whitish, the tibiæ and tarsi suffused with brown. Fore wing with the costal half from inner margin before middle to apex ochreous suffused with rufous, the rest of wing reddish brown with a large whitish patch at tornus extending to postmedial line and up to vein 3, the costal edge red-brown; traces of a double waved rufous antemedial line; two black discoidal points; an indistinct rufous medial line oblique from costa to beyond upper angle of cell, below vein 4 inwardly oblique and forming the inner edge of the dark area; postmedial line excurved from costa to vein 4, then double, the inner line blackish, incurved and minutely waved, some pale points beyond it on costa; subterminal line double, minutely waved, slightly angled inwards at discal fold and outwards at vein 4 where it is crossed by a dark streak from postmedial line; a series of black points before termen conjoined into a line from below apex to vein 4; a fine blackish terminal line; cilia rufous mixed with dark brown. Hind wing red-brown, the base ochreous bounded by the dark antemedial line; two black discoidal points; traces of a curved minutely dentate medial line; postmedial line very indistinct and excurved from costa to vein 2, then double, rufous filled in with white and minutely waved; a series of black points before termen; a fine waved black terminal line; the underside white slightly irrorated with brown, the costal area tinged with rufous, a black

discoidal point, traces of postmedial and subterminal lines, and a series of black points before termen.

Hab. CERAM (*Wallace*), type † ♀ in Mus. Oxon. *Exp.* 28 millim.

5350. **Lophoruza diagonalis**, n. sp. (Plate CLV. fig. 25.)

♂. Head and thorax rufous mixed with some white; abdomen rufous with whitish band at base and slight white segmental lines on terminal segments; palpi white in front; pectus, legs, and ventral surface of abdomen white, the legs tinged with rufous. Fore wing bright rufous; an inwardly oblique white antemedial line, met at inner margin by an oblique white fascia from apex; two slight blackish discoidal points; postmedial line white, oblique from costa to vein 6, incurved at discal fold, angled outwards at vein 4, then strongly incurved, some white points beyond it on costa and some yellow at discal fold; subterminal line indistinct, greyish white, slightly excurved below vein 7 and at middle, then oblique, some yellow beyond it between veins 7 and 4; a series of dark striæ before termen, defined on inner side by white striæ on inner area; a fine waved dark terminal line; cilia whitish, tinged with red on apical half. Hind wing white irrorated with fiery red, the basal area pure white, the terminal area pale brown; a fiery red antemedial band diffused on outer side at inner margin to the postmedial line, which is very indistinct, white, minutely waved, excurved at middle; subterminal line very indistinct, white, curved, with two small black spots on it above inner margin; a series of black points defined on inner side by white before termen from apex to vein 2; a fine waved brown terminal line with some white before it towards tornus; the underside whitish, a slight dark discoidal spot, indistinct curved postmedial line, double maculate subterminal line, and series of small black spots before termen.

Hab. SINGAPORE (*Ridley*), 2 ♂ type. *Exp.* 26 millim.

SECT. II. Palpi with the 2nd joint reaching vertex of head, the 3rd moderate, blunt.

A. Mid tibiæ of male with thick fringes of long hair on both sides.

a. Fore wing with white lunule on subterminal line above middle ..... *lithina*.

b. Fore wing without white lunule on subterminal line above middle ..... *creata*.

5351. **Lophoruza lithina.**

Mesleta lithina, Holl. Psyche, vii. p. 113 (1894).

Head fuscous slightly mixed with grey; tegulæ rufous mixed with fuscous and grey; thorax white mixed with rufous; abdomen grey mixed with fuscous and rufous and with white band at base;

pectus, legs, and ventral surface of abdomen grey, the fore legs brown in front. Fore wing chocolate-red, the costal area white irrorated with brown, thickly towards costa, the white extending to inner margin at base; antemedial line represented by a dark mark in cell and traces of an oblique dark line from cell to inner margin; a slight white discoidal striga connected with the white costal area; postmedial line dark defined on outer side by white, oblique from costa to vein 6 where it is acutely angled outwards,

Fig. 61.—*Lophoruza lithina*, ♂. $\frac{2}{3}$.

then incurved and slightly sinuous, some white points beyond it on costa; subterminal line white defined on each side by blackish from costa to below vein 5, then indistinct, dark, slightly incurved below costa where there is a wedge-shaped black mark before it, angled outwards below vein 5, then incurved, some yellowish white beyond it from the costal fascia to below vein 5; a series of black points just before termen slightly defined on outer side by white; a fine black terminal line except towards tornus. Hind wing chocolate-red, the base white; traces of an oblique dark discoidal striga; a faint dark postmedial line slightly defined on outer side by grey, angled outwards at vein 4, then incurved; a faint diffused dark subterminal line; a series of black points just before termen; a fine dark terminal line and pale line at base of cilia; the underside grey, a dark discoidal point, medial and subterminal lines, and a series of black points before termen.

Hab. Gold Coast, Aburi (*Sir G. Carter*), 1 ♂, Kumasi (*Whiteside*), 2 ♀; Gaboon, Benito R., 1 ♂ co-type; Natal, Durban (*Gooch*), 1 ♀. *Exp.* 22–26 millim.

*5352. Lophoruza mascarena. (Plate CLV. fig. 26.)

Lophoruza mascarena, de Joan. Bull. Soc. Ent. Fr. 1910, p. 203.

♂. Head and tegulæ red-brown slightly mixed with grey; palpi dark brown, the tips of 2nd and 3rd joints whitish; thorax whitish tinged with flesh-pink, the pectus and legs whitish tinged with brown; abdomen red-brown, the base whitish tinged with pink, the crests blackish, the ventral surface whitish. Fore wing red-brown with the costal area broadly whitish irrorated with brown, expanding at base to inner margin; traces of a diffused double antemedial line, very oblique from submedian fold to inner margin near base, a blackish point on it in submedian fold; a minute black point

at upper angle of cell and small spot at lower angle with very oblique line from it to inner margin near base defining the white and brown areas; postmedial line double filled in with white, acutely angled outwards at vein 7, then very oblique and slightly bent outwards to inner margin; subterminal line indistinct, pale, defined on each side by fuscous, excurved below costa, then oblique; a series of black points before termen. Hind wing red-brown, the base and inner margin to beyond middle whitish; a blackish discoidal bar; postmedial line double filled in with whitish, sinuous; a subterminal series of fuscous and whitish points; a series of black points before termen: the underside grey suffused with brown, traces of a dark discoidal spot and of curved postmedial and subterminal lines, a series of black points before termen.

Hab. Mauritius, Curepipe (*Cavié*), type ♀ ♂ in coll. Joannis.
Exp. 22 millim.

B. Mid tibiæ of male normal.
  a. Fore wing with the costal area whitish, its lower edge oblique from apex to inner margin near base..... *vacillatrix.*
  b. Fore wing with the costal area not whitish.
    a^1. Fore wing pale rufous..... *addescens.*
    b^1. Fore wing ochreous yellow, the terminal area suffused with crimson ..... *xylinota.*

5353. Lophoruza vacillatrix, n. sp.

Head and tegulæ rufous slightly mixed with grey; thorax white mixed with brown; abdomen chocolate-red with a white line at base: pectus and legs white slightly tinged with rufous, the fore-legs brownish in front. Fore wing chocolate-red, the costal area white irrorated with brown, thickly towards costa, the white extending to inner margin near base; a faint brown antemedial line, slightly angled outwards below costa and at median nervure, then oblique; two black discoidal points; postmedial line dark

Fig. 62.—*Lophoruza vacillatrix*, ♂. ½.

defined on outer side by white, very oblique from costa to below vein 7 where it is acutely angled outwards, then incurved and very slightly sinuous, a curved white mark becoming yellow at extremity from its angle to near termen and some white points beyond it on costa; subterminal line white with black mark before it below costa, interrupted at the curved streak, then slight and very minutely dentate, a white mark beyond it at apex; a series of black points before termen with white striæ on their outer side on apical

half; cilia with a fine whitish line at base and some white at apex. Hind wing chocolate-red, the base white; traces of a red discoidal point; postmedial line slight, blackish faintly defined on outer side by grey, excurved below costa and at middle, subterminal line represented by a series of slight diffused blackish spots with whitish points on their outer edges; a series of black points just before termen; cilia with a fine pale line at base; the underside grey tinged with brown, a dark discoidal spot, bisinuate postmedial line, diffused curved subterminal line, and series of black points before termen.

Hab. Sikhim, 1800′ (*Dudgeon*), 1 ♂, 4 ♀ type: Assam, Khásis, 1 ♀; Madras, Belgaum (*Watson*), 1 ♂, Nilgiris (*Hampson*), 2 ♀. *Exp.* 22–26 millim.

5354. Lophoruza addescens. (Plate CLV. fig. 27.)

Pseudocraspedia addescens, Swinh. A. M. N. H. (7) viii. p. 17 (1901).

♂. Head, thorax, and abdomen pale rufous; palpi with some black at sides; vertex of head with some black scales; abdomen with the crests tipped with black, a blackish band before extremity and dorsal patch on anal tuft. Fore wing pale rufous; a black point at middle of cell and another on discocellulars; antemedial and medial black points on costa, and some points towards apex; faint traces of a pale postmedial line with black points on it at veins 7, 6 and in submedian fold, oblique below vein 4; faint traces of a pale postmedial line with a series of black points on its outer edge, oblique below vein 4; a terminal series of black points. Hind wing pale rufous irrorated with a few black scales; a black discoidal point; faint traces of pale minutely waved postmedial and subterminal lines, the latter with a series of black points on its outer edge; a terminal series of black points; the underside whitish tinged with rufous, a black discoidal point, traces of a minutely waved subterminal dark line, and a terminal series of black points.

Hab. Queensland, Duaringa, 1 ♂ type. *Exp.* 22 millim.

*5355. Lophoruza xylonota. (Plate CLV. fig. 28.)

Zagira? *xylonota*, Lower, Tr. R. Soc. Austr. xxvii. p. 37 (1903).

♀. Head and thorax orange-yellow; palpi tinged with crimson; abdomen ochreous, the dorsal crests reddish. Fore wing ochreous yellow with slight dark irroration; traces of a minutely waved double antemedial line and single medial line; a more distinct somewhat dentate postmedial line, obsolete towards costa, the area beyond it suffused with crimson except on costal area, and with an indistinct waved subterminal line on it. Hind wing silky ochreous; the underside white.

Hab. Queensland, Mackay, type ♀ in coll. Lower. *Exp.* 24 millim.

Genus CARMARA.

	Type.
Carmara, Wlk. Journ. Linn. Soc., Zool. vii. p. 62 (1864).....	*subcervina*.
Zagira, Wlk. xxxv. 1637 (1866)	*subcervina*.
Gyrognatha, Hmpsn. Ill. Het. B. M. ix. p. 134 (1893)	*subcervina*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and broadly fringed with hair in front, and behind towards extremity, the 3rd joint minute and buried in the hair of 2nd joint, the extremity of the palpi appearing to be rounded; frons smooth; eyes large, round; antennæ of male with cilia and bristles; thorax clothed almost entirely with scales and without crests; fore tibiæ of male dilated and hollowed out forming a double chamber divided by a membranous wall, and clothed with long hair, the mid tibiæ fringed with long hair, the hind tibiæ smoothly scaled; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and slightly crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 and 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5356. Carmara subcervina.

Carmara subcervina, Wlk. Journ. Linn. Soc., Zool. vii. p. 63 (1864).
Zagira acidaliaria, Wlk. xxxv. 1638 (1866); Hmpsn. Moths Ind. ii. p. 347.
Gyrognatha atriceps, Hmpsn. Ill. Het. B. M. ix. p. 134, pl. 163. f. 10 (1893).

Head blackish; thorax and abdomen rufous, the latter with slight blackish segmental lines; fore legs blackish in front. Fore wing pale brownish rufous with slight dark irroration; a slight brown antemedial line with black point at costa, somewhat excurved; two black discoidal points; traces of a brownish medial

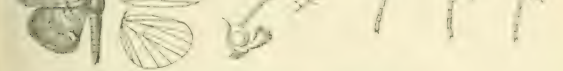

Fig. 63.—*Carmara subcervina*, ♂.

line excurved beyond the cell; postmedial line slight, brownish faintly defined on outer side by whitish and with black point at costa, oblique from costa to vein 6, then minutely dentate and produced to white points on the veins, incurved below vein 4, some white points beyond it on costa; faint traces of a pale subterminal line, slightly excurved below vein 7 and at middle; a terminal series of black points. Hind wing pale brownish rufous slightly irrorated with black; two black discoidal points; traces of a minutely dentate postmedial line with white points at the veins

and prominent white spot at inner margin; faint traces of a pale curved subterminal line; a fine waved black terminal line with black points in the interspaces; the underside greyish suffused with brown, an indistinct dark discoidal striga and curved post-medial line.

Hab. Ceylon, Pundaloya (*Green*), 1 ♂, 1 ♀ type *atriceps*; Borneo, Sarawak (*Wallace*), 2 ♀; Mysol; Dutch N. Guinea, Kapaur (*Doherty*), 1 ♂; Queensland, Kuranda (*Dodd*), 1 ♀. *Exp.* 22–26 millim. Type † ♀ and type *acidaliaria* in Mus. Oxon.

Genus **ORUZA.**

	Type.
Oruza, Wlk. xxiv. 1089 (1862)	*costata.*
Zurobata, Wlk. xxxiv. 1276 (1865)	*rorata.*
Curvatula, Staud. Rom. Mém. vi. p. 601 (1892)	*mira.*
Vittappressa, Beth.-Baker, Nov. Zool. xiii. p. 206 (1906)	*rufiplaga.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and smoothly scaled, the 3rd well developed; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ typically slightly fringed with hair, the spurs long; abdomen without crests. Fore wing with the apex somewhat produced and acute, the termen typically evenly curved and crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell or shortly stalked; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Fore wing with the termen excurved at middle, then excised and dentate; hind wing with the termen angled at veins 7 and 4; fore femora of male with tufts of long curled hair, the tibia with thick tufts on both sides; mid and hind tibiæ fringed with long hair on both sides.

*5357. Oruza unipunctata.

Oruza unipunctata, Beth.-Baker, Nov. Zool. xiii. p. 215 (1906).

♂. Head, thorax, and abdomen bright flesh-red, the thorax with a silvery gloss; pectus, legs, and ventral surface of abdomen

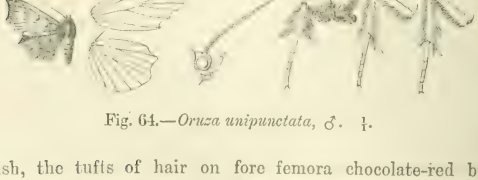

Fig. 64.—*Oruza unipunctata*, ♂. ½.

whitish, the tufts of hair on fore femora chocolate-red below, the tufts of tibia chocolate-red. Fore wing bright flesh-red with slight dark irroration; antemedial line faint, pale with dark brown

spot on its inner side in cell and point on its outer side on median nervure; a small discoidal lunule defined by deep red and with point above it on costa; a faint pale subterminal line excurved to vein 4, then incurved. Hind wing bright flesh-red, the inner margin white; a black discoidal spot; a faint pale slightly sinuous postmedial line; the underside whitish, the disk tinged with pink, the termen with brown, a blackish discoidal point.

Hab. Br. New Guinea, Aroa R. (*Meek*), type† ♂ in Coll. Rothschild. *Exp.* 24 millim.

Sect. II. Both wings with the termen evenly curved.

A. Underside of both wings of male, except terminal area, clothed with rough hair; fore and mid tibiæ with very thick fringe of hair on outer side.

5358. Oruza vacillans.

Selenis vacillans, Wlk. Journ. Linn. Soc., Zool. vii. p. 189 (1864).
Selenis æqualis, Wlk. Journ. Linn. Soc., Zool. vii. p. 189 (1864).
Selenis inæqualis, Wlk. Journ. Linn. Soc., Zool. vii. p. 189 (1864).
Selenis irrecta, Wlk. xxxiii. 1066 (1865); Moore, Lep. Ceyl. iii. p. 209, pl. 174. ff. 1, 1*a*; Hmpsn. Moths Ind. ii. p. 345.
Selenis niviapex, Wlk. xxxiii. 1069 (1865).
Xanthoptera selenicula, Snell. Tijd. v. Ent. xxiii. p. 62, pl. 5. f. 4 (1880).

Head and tegulæ rufous; thorax grey-white mixed with fuscous; abdomen chocolate-red with a white band at base; pectus, legs, and ventral surface of abdomen whitish tinged with brown, the fore legs brown in front. Fore wing chocolate-red, the costal area white thickly irrorated with brown except at lower edge, the white

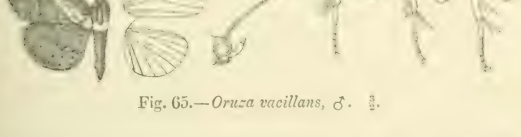

Fig. 65.—*Oruza vacillans*, ♂. ¾.

extending to inner margin near base; antemedial line slight, brown with some white on its outer edge, from the costal area to inner margin; a white discoidal striga connected with the lower edge of the white costal area; postmedial line dark defined on outer side by white, very oblique from costa to vein 6 where it is acutely angled and slightly excurved at vein 7, then incurved, some white points beyond it on costa and some white between its angle and the white subterminal line which has a small black spot before it below costa, angled inwards at vein 7, excurved below vein 7 and at middle and reduced to points on inner half; an oblique white mark at apex and small triangular spot below vein 6; a series of black points just before termen with slight white striæ on their

outer edges; a fine dark terminal line; cilia tinged with fuscous and intersected with whitish on apical half. Hind wing chocolate-red, the base white; an indistinct minutely dentate dark postmedial line slightly defined on outer side by grey, incurved above inner margin; subterminal line represented by a curved series of grey and black points with more prominent black spots towards inner margin; a series of black points just before termen; a fine waved black terminal line and pale line at base of cilia; the underside grey tinged with rufous on basal half, indistinct curved dark postmedial and subterminal lines and a series of black points before termen.

Ab. 1. *æqualis*. Fore wing without the triangular white spot on termen below vein 6.

Ab. 2. *inæqualis*. Colour ochreous tinged with rufous; fore wing with the costal area often nearly uniformly suffused with brown.

Hab. PUNJAB, Manpuri, 1 ♀; SIKHIM, 1 ♀; N. ASSAM, Dibrugah (*Ward*), 2 ♀; BOMBAY, 1 ♀, Kanara (*Ward*), 1 ♀, Karwar (*Bell*), 1 ♂; CEYLON (*Templeton*), 1 ♂, 3 ♀ types *irrecta* and *niviapex*, Holnicot, 1 ♀; BURMA, Moulmein (*Clerk*), 1 ♂; SINGAPORE (*Ridley*), 5 ♂, 2 ♀; BORNEO, Kuching (*Shelford*), 1 ♂, Sarawak (*Wallace*), 2 ♂, 3 ♀; CELEBES. *Exp.* 23–28 millim. Type and types † *æqualis* and *inæqualis* in Mus. Oxon.

B. (*Zurobata.*) Underside of fore wing of male except terminal area and base of hind wing clothed with rough hair; fore tibiæ normal.
  a. Hind wing with white subterminal line angled outwards to termen at discal fold.
    a^1. Fore wing with the subterminal line acutely angled outwards below apex and inwards at discal fold ..... *reticulata.*
    b^1. Fore wing with the subterminal line slightly excurved below apex and incurved at discal fold ..... *decorata.*
  b. Hind wing without white subterminal line.
    a^1. Fore wing with white streak in cell and discal fold from base to termen ..... *fissifascia.*
    b^1. Fore wing without white streak in cell and submedian fold.
      a^2. Fore wing with round white discoidal spot ..... *rorata.*
      b^2. Fore wing with blackish discoidal spot defined on inner side by white ..... *intructata.*

5359. Oruza reticulata.

Selenis reticulata, Moore, Lep. Atk. p. 178, pl. vi. f. 9 (1882); Hmpsn. Moths Ind. ii. p. 346.

♂. Head and thorax white mixed with pale rufous and irrorated with brown; abdomen pale rufous with white band at base, the terminal segments tinged with white and with white segmental lines; pectus, legs, and ventral surface of abdomen white, the fore and mid tibiæ slightly tinged with brown. Fore wing pale rufous; subbasal line white, bent inwards at inner margin to base, some pinkish and black before it on costa and a black spot beyond it on

costa; a violaceous white antemedial band with dark striæ on it from costa and in and below cell representing the antemedial line, oblique below the cell to inner margin near base and with violaceous white suffusion beyond it in cell and on costal area to beyond middle; orbicular represented by a minute white spot; reniform defined by white, inwardly oblique, triangular, a curved white streak from its upper extremity to the angle of subterminal line above vein 6, representing part of the postmedial line which is then faint and oblique to vein 4, below which it is bent inwards to lower edge of reniform and white and erect to inner margin; some white striæ from postmedial part of costa; subterminal line fine, white, angled outwards at vein 7 and inwards above 6, then excurved and indistinct below vein 4, some white suffusion beyond it between veins 7 and 5; small triangular brown spots before termen from below apex to vein 5, defined on inner side by a white line, the white extending to termen at apex and vein 5; a fine pale line at base of cilia. Hind wing pale rufous, the base white; an elliptical discoidal spot slightly defined by white; postmedial line slight, white, excurved from costa to vein 4, then bent inwards to near lower angle of cell and oblique to inner margin; a fine curved white subterminal line, connected with termen by a minute triangular white mark at middle; a series of brownish points just before termen slightly defined on outer side by white; a fine pale line at base of cilia; the underside whitish tinged with rufous, traces of a curved postmedial line.

Hab. Punjab, Dalhousie (*Harford*), 1 ♂; Sikhim. *Exp.* 26 millim.

5360. **Oruza decorata.** (Plate CLV. fig. 29.)

Cerynea decorata, Swinh. A. M. N. H. (7) xi. p. 505 (1903).

Head, thorax, and abdomen white suffused with pale rufous, the last with white band at base; pectus, legs, and ventral surface of abdomen white. Fore wing pale rufous; a waved whitish subbasal line from costa to base of inner margin, with a black point on its outer edge below costa and some whitish beyond it on inner margin; antemedial line white, slightly angled outwards below costa and at vein 1, with small blackish spot beyond it at costa and striæ in and below cell, followed by a white patch from costa to submedian fold, then by the reniform which is defined by white, inwardly oblique, triangular; postmedial line white and very oblique from costa to vein 6, then represented by faint blackish spots, slightly incurved at discal fold and below vein 4 bent inwards to lower edge of reniform; subterminal line white, angled outwards at vein 7, incurved at discal fold, excurved at middle, then oblique; the apical area white; a series of blackish points before termen. Hind wing pale rufous, the base white; a whitish discoidal striga; a slight curved white medial line; postmedial line indistinct, blackish slightly defined on outer side by white and

slightly angled outwards at veins 6 and 4; subterminal line white, angled outwards to termen at vein 5; a series of blackish points just before termen; the underside white.

Hab. Bhután (*Dudgeon*), 1 ♀; Siam, Muok-Lek (*Fruhstorfer*), 1 ♂ type. *Exp.* 20–24 millim.

5361. **Oruza fissifascia.** (Plate CLV. fig. 30.)

Zurobata fissifascia, Hmpsn. Moths Ind. iv. p. 518 (1896).

♂. Head, thorax, and abdomen deep red-brown slightly mixed with grey, the prothorax with white band; pectus, legs, and ventral surface of abdomen whitish, the fore and mid tibiæ and tarsi brown. Fore wing dark brown mixed with red and some whitish: a diffused white fascia in cell from base to near extremity, then dividing into a streak on subcostal nervure to postmedial line and a streak in discal fold dividing beyond the cell into fine streaks above and below vein 5 and extending to subterminal line; antemedial line fine, white, inwardly oblique below the white fascia; reniform small, dark, incompletely defined by white, strongly constricted at middle; postmedial line fine, white, oblique from costa to vein 6 where it is acutely angled outwards, then incurved, some white points beyond it on costa; subterminal line fine, whitish, arising below costa where there is a small dentate black mark before it, angled outwards at vein 7, incurved below vein 3 and ending at tornus; a series of black and white points just before termen; an oblique white streak from apex and a slight streak on terminal area and cilia above vein 5. Hind wing brown mixed with red and some whitish, the inner margin ochreous white; a blackish discoidal bar: postmedial line whitish slightly defined on inner side by brown, oblique: an indistinct minutely waved excurved whitish subterminal line, bent outwards to tornus and defined on inner side by slight dentate dark marks; a series of blackish points just before termen: the underside ochreous white with fuscous brown suffusion at base and some brown irroration on terminal area, a brownish discoidal bar, indistinct curved postmedial and subterminal lines, and a series of black points before termen.

Hab. Ceylon, Hambantota (*Pole*), 1 ♂ type. *Exp.* 22 millim.

5362. **Oruza rorata.**

Zurobata rorata, Wlk. xxxiv. 1276 (1865); Hmpsn. Moths Ind. iv. p. 518.

Xanthoptera constellata, Snell. Tijd. v. Ent. xxiii. p. 62 (1880).

Mesiteta multiguttata, Moore, Lep. Ceyl. iii. p. 210, pl. 174. f. 8 (1885); Hmpsn. Moths Ind. ii. p. 346.

Head and tegulæ deep chocolate-red: thorax and abdomen paler red-brown, a white band on prothorax and dorsal series of white spots on abdomen, the 2nd segment with subdorsal points; pectus, femora, and ventral surface of abdomen whitish, the tibiæ rufous,

the tarsi brownish ringed with white. Fore wing chocolate-red-brown slightly mixed with whitish, the costal edge darker; subbasal white and dark points on costa and a white point above inner margin; traces of a sinuous red-brown antemedial line with white and dark point at costa and whitish point in submedian fold; a white point in middle of cell and small discoidal spot ringed with red-brown; traces of a red-brown medial line from cell to inner margin; a slight red-brown postmedial line with white striga from costa, then a series of white points on it, oblique from costa to vein 7, incurved at discal fold, incurved and minutely waved below vein 4, some white points beyond it on costa; subterminal line

Fig. 66.—*Oruza rorata*, ♂. ⅔.

represented by three small white spots between costa and vein 5, then a series of points incurved below vein 3, a white spot beyond it at apex and another above vein 5; a series of white points just before termen; cilia with a series of whitish points. Hind wing chocolate-red-brown; a subbasal white point above inner margin; two points at lower angle of cell; a medial series of small white spots angled outwards at vein 4 and followed by a maculate yellowish-white band from below costa; a curved postmedial series of white points with larger spot at discal fold; small subterminal white spots above and below discal fold; a series of white points just before termen; cilia with a series of yellowish-white points; the underside white tinged with brown, a dark discoidal lunule, postmedial series of whitish spots with slight dark marks before and beyond them, and subterminal series of small dark lunules with whitish points beyond them.

Hab. Ceylon (*Templeton*, *Yerbury*), 1 ♂, 5 ♀, Pundaloya (*Green*), 1 ♀; Selangor, Kuala Lumpur (*Durham*), 1 ♀; Borneo, Sarawak (*Wallace*), 1 ♀; Java, type † *constellata* in Coll. Snellen. *Exp.* 18–24 millim. Type † ♂ in Mus. Oxon.

5363. Oruza intractata.

Capnodes intractata, Wlk. Journ. Linn. Soc., Zool. vii. p. 188 (1864): Swinh. Cat. Het. Mus. Oxon. ii. p. 65, pl. i. f. 23.

Head bright rufous; thorax whitish with some rufous suffusion behind; abdomen rufous with some rufous suffusion on dorsum; pectus, hind legs, and ventral surface of abdomen white, the fore and mid tibiæ and tarsi rufous. Fore wing chocolate-red slightly mixed with whitish, the costal area whitish to beyond middle; a

subbasal whitish spot above inner margin; antemedial line indistinct, whitish, oblique from costa to submedian fold; a whitish point in middle of cell and blackish discoidal spot with whitish striga on its inner edge; postmedial line whitish slightly defined on inner side by brown, bent outwards below costa, incurved at discal fold, incurved and slightly waved below vein 4 and bent outwards at vein 1; a subterminal series of small white spots defined on outer side by fuscous from below costa to vein 5, then minute white points to inner margin, a white spot beyond them at apex and another at discal fold; a series of blackish points followed by white striæ just before termen. Hind wing chocolate-red; a subbasal whitish mark on inner margin; an incomplete whitish discoidal annulus; a lunulate white postmedial line angled outwards at vein 4, then incurved, followed by a maculate white band from vein 6 to inner margin; a curved subterminal series of small white spots followed by three small spots between veins 6 and 3; a series of white striæ just before termen; cilia with a whitish line at base; the underside white, the base faintly tinged with rufous, a faint dark discoidal spot and sinuous postmedial line, a subterminal series of white spots faintly defined by fuscous, and series of dark striæ before termen.

Hab. Borneo, Sarawak (*Wallace*), type † ♀ in Mus. Oxon., Sandakan (*Pryer*), 1 ♂. *Exp.* 26 millim.

C. Underside of both wings in male without rough hair.

a. Palpi with the 2nd joint reaching to far above vertex of head, the 3rd long and acuminate; fore wing with the areole triangular, vein 7 from before its extremity.

5364. Oruza bipars.

Zagira bipars, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 647 (1907).

Head reddish ochreous irrorated with black and with blackish bar on vertex, the antennæ black; tegulæ blackish with ochreous

Fig. 67.—*Oruza bipars*, ♂. ½.

line at base; thorax reddish ochreous; abdomen velvety black-brown irrorated with grey; pectus, legs, and ventral surface of abdomen whitish irrorated with black, the tarsi ringed with white. Fore wing with the costal area dull reddish ochreous to subterminal line, irrorated with fuscous towards costa and extending to inner margin near base, the rest of wing velvety black-brown to post-

medial line, then greyish fuscous; antemedial line represented by a slight ochreous striga from costa; postmedial line slight, ochreous, oblique from costa to vein 6, then incurved, the costal edge beyond it black with ochreous points on it; subterminal line represented by two small triangular black spots on outer edge of ochreous area, an ochreous point with small black spot beyond it and streak before it below the ochreous area, then by slight ochreous points incurved below vein 4; a series of ochreous white points with black points before them just before termen. Hind wing greyish fuscous; a diffused grey medial band with the waved black postmedial line on it; a subterminal series of ochreous points excurved at middle and towards tornus, the points at veins 5 and 4 defined on outer side by black; a series of ochreous white points with black points before them just before termen; cilia whitish at tips; the underside white irrorated with black, the basal costal area tinged with ochreous, the terminal area suffused with fuscous, a blackish discoidal spot, minutely waved medial and postmedial lines, and a subterminal series of white lunules excurved at middle and towards tornus.

Hab. Assam. Khásis. 1 ♂ type; Bombay, Kanara, Karwar (*Bell*), 1 ♀. *Exp.* 26 millim.

b. Palpi with the 2nd joint reaching vertex of head and triangularly scaled in front, the 3rd long and acuminate with slight tufts of scales behind at base and near tip.
  *a*¹. Fore wing with white streak in end of cell giving off three streaks beyond the cell ..... *albolineata.*
  *b*¹. Fore wing without white streaks in and beyond the cell.
    *a*². Fore wing uniformly suffused with red-brown... *nigropunctata.*
    *b*². Fore wing with the basal and terminal areas suffused with red-brown, the medial area ochreous ..... *mediopallens.*
    *c*². Fore wing ochreous slightly tinged with red-brown ..... *bicarnicolor.*

*5365. Oruza albolineata. (Plate CLV. fig. 31.)

Corgatha albolineata, Beth.-Baker, Nov. Zool. xiii. p. 214 (1906).

♀. Head and thorax bright brown-red mixed with grey and some white; palpi with some blackish scales in front; metathorax with dark patch; mid and hind legs whitish; abdomen bright brown-red, the 1st segment grey with a white segmental line, the anal tuft and ventral surface white. Fore wing bright brown-red, the base grey with a white line close to base and bounded by a curved white line with a series of brown points on it and emitting a white streak through upper part of cell branching into three streaks beyond upper angle where there is a small white lunule; postmedial line slight, white with dark points on its inner edge, bent outwards below costa and excurved between veins 8 and 6 where there are two small wedge-shaped black marks before it, then inwarved, excurved between veins 5 and 3, then again incurved and excurved

below submedian fold, some white points beyond it on costa; subterminal line minutely waved, incurved and white defined on outer side by blackish from costa to vein 4, then slight oblique and incurved at submedian fold: the apical area with white patches at apex and between veins 6 and 4 with a dark patch between them and with slight yellowish marks beyond subterminal line; a series of black points on slight white marks just before termen; a fine waved dark terminal line; cilia with slight white points at base and white streaks between veins 6 and 4. Hind wing bright brown-red, the terminal area slightly browner, the inner margin fringed with white hair; an oblique white line at base; a black point at lower angle of cell; postmedial line punctiform, blackish, excurved below costa, at middle, and to inner margin: a curved subterminal series of white points; a series of black and white points before termen: a fine waved dark terminal line; cilia with a punctiform white line at base; the underside whitish tinged with red especially on costal area and terminal area from apex to vein 2, a diffused sinuous red postmedial line and series of black points before termen.

Hab. Br. New Guinea, Aroa R. (*Meek*), type ♀ in Coll. Rothschild. *Exp.* 26 millim.

5366. Oruza nigropunctata.

Corgatha nigropunctata, Beth.-Baker, Nov. Zool. xiii. p. 214 (1906).

Head, thorax, and abdomen rufous with a slight greyish tinge; palpi with the 3rd joint irrorated with black and with some black just before tip; abdomen with dorsal black points on 3rd and 4th segments; pectus, legs, and ventral surface of abdomen ochreous

Fig. 68.—*Oruza nigropunctata*, ♂. ½.

white. Fore wing yellowish tinged with rufous and slightly irrorated and suffused with brown; indistinct punctiform curved brownish subbasal and antemedial lines; a discoidal spot defined by blackish points; traces of a dark medial line excurved in cell; postmedial line punctiform, excurved below costa, then oblique and with a somewhat dentate dark shade beyond it from below costa to inner margin; subterminal line yellowish, angled outwards at vein 7, dentate and oblique from vein 5 to inner margin; apical area yellowish; a series of black points just before termen; a fine waved black terminal line. Hind wing yellowish tinged with rufous and slightly irrorated and suffused with brown; a faint brownish antemedial line; two black discoidal points; a minutely waved dark postmedial line with faint brownish shade beyond it except towards costa; a faint sub

terminal series of small yellowish lunules slightly defined on each side by brown suffusion; a series of black points just before termen; a dentate dark terminal line; the underside grey-white faintly tinged with rufous, a series of black points before termen.

Hab. Br. New Guinea, Aroa R., type† in Coll. Rothschild, Sogeri, 1 ♀; Solomons, Rendova (*Meek*), 1 ♂. *Exp.* 24 millim.

*5367. Oruza mediopallens. (Plate CLVI. fig. 2.)

Corgatha mediopallens, Beth.-Baker, Nov. Zool. xiii. p. 214 (1906).

♀. Head and thorax grey-brown with diffused blood-red streaks on sides of head and vertex of thorax; palpi with blood-red marks at sides and black scales at extremities of 2nd and 3rd joints in front; pectus and legs yellowish white; abdomen grey-brown, the base blood-red, the ventral surface white. Fore wing grey-brown, the basal area with patches of blood-red, a large patch on inner area beyond middle and a diffused patch from beyond end of cell to termen from below apex to vein 3; two black points at base; subbasal line represented by black points below costa and in cell; a very minutely waved antemedial line bounding the red area; traces of a minutely waved medial line; a round discoidal spot defined by black points; postmedial line blackish at costa, then red, bent outwards below costa, then minutely waved, excurved to vein 4, then incurved and outwardly oblique to inner margin; subterminal line white and incurved from costa to vein 4, produced to slight teeth on veins 7 and 5, then faint, pale, oblique, minutely waved; a series of black points just before termen; a fine waved dark terminal line. Hind wing grey-brown, the inner margin white; slight black points at angles of cell; postmedial line faint, brownish, punctiform, more distinct towards inner margin, excurved at middle and bent outwards to inner margin; traces of a pale waved subterminal line; a series of black points before termen; a fine waved brown terminal line; the underside whitish, the costal area faintly tinged with red, faint diffused medial and subterminal lines on costal area, a series of black points before termen.

Hab. Br. New Guinea, Aroa R. (*Meek*), type† ♀ in Coll. Rothschild. *Exp.* 26 millim.

*5368. Oruza biarmioides. (Plate CLVI. fig. 3.)

Homoptera biarmioides, Wlk. Journ. Linn. Soc., Zool. vii. p. 83 (1864).

♀. Head, thorax, and abdomen ochreous mixed with reddish brown. Fore wing ochreous tinged with reddish brown and irrorated with fuscous; an ill-defined double dark subbasal line from costa to inner margin; antemedial line dark, double at costa, oblique to middle of cell, then erect, a slight blackish mark before it in cell; a small elliptical discoidal spot defined by blackish; postmedial line indistinctly double, the outer line diffused, oblique from costa to vein 4, then slightly waved, some short black streaks beyond

it on costa: a diffused subterminal dark shade from costa to vein 4; a series of black points just before termen. Hind wing ochreous tinged with red-brown and slightly irrorated with black, the terminal area suffused with dark brown; two oblique black discoidal striæ and an oblique dark line from origin of vein 2 to inner margin; postmedial line double, sinuous: a slight dark subterminal shade: a fine waved black terminal line with blackish points at the interaces; the underside ochreous irrorated with brown, faint medial, postmedial, and subterminal brown shades.

Hab. Borneo, Sarawak (*Wallace*), type † ♀ in Mus. Oxon. in bad condition. *Exp.* 22 millim.

(*Oruza*). Palpi with the 2nd joint reaching vertex of head, the 3rd moderate, blunt; fore wing with the areole normal.

a^1. Fore wing with broad pale costal fascia extending to base of hind wing.

a^2. Fore wing with the postmedial line defined on each side by whitish ..... *stragulata.*

b^2. Fore wing with the postmedial line slightly defined on outer side by whitish.

a^3. Fore wing with the costal fascia tinged with rufous ..... *semilux.*

b^3. Fore wing with the costal fascia nearly pure white.

a^4. Hind wing with the postmedial area not yellowish ..... *divisa.*

b^4. Hind wing with the postmedial area yellowish ..... *latifera.*

b^1. Fore wing without pale costal fascia extending to base of hind wing,

a^2. Wings grey-white, with some rufous on postmedial area ..... *rufiplaga.*

b^2. Wings ochreous tinged with rufous to deep chocolate-brown.

a^3. Fore wing with more or less developed whitish or pale costal fascia.

a^4. Both wings with large grey-white patch on tornal area.

a^5. Fore wing with oblique whitish discoidal lunule ..... *lacteicosta.*

b^5. Fore wing with small white spot at lower angle of cell ..... *glaucotorna.*

b^4. Wings without large grey-white patch on tornal area.

a^5. Fore wing with large yellowish patch on termen below apex ..... *xanthopera.*

b^5. Fore wing without yellowish patch on termen below apex.

a^6. Fore wing with the costal fascia pure white.

a^7. Fore wing with the antemedial line straight, erect ..... *rectilineata.*

b^7. Fore wing with the antemedial line bent inwards to costa.

a^8. Fore wing with small white spot at lower angle of cell ..... *leucocraspia.*

b^8. Fore wing without white spot at lower angle of cell ..... *albocostata.*

b^6. Fore wing with the costal fascia ochreous.
a^7. Fore wing with the postmedial line incurved ..... [illegible]
b^7. Fore wing with the postmedial line oblique, straight.
a^8. Fore wing with pale streaks on the veins of terminal half ..... *mira*.
b^8. Fore wing without pale streaks on the veins of terminal half..... *crocodeta*.
b^5. Fore wing without pale costal fascia ..... *atriapicata*.
c^2. Wings white ..... [illegible]

5369. Oruza stragulata.

Zagira stragulata, Pag. Zoologica, xii. p. 85, pl. ii. f. 11 (1900).
Cerynea morma, Swinh. A. M. N. H. (7) vii. p. 472 (1901).
Zagira pratti, Beth.-Baker, Nov. Zool. xiii. p. 213 (1906).

♂. Head and tegulæ fuscous slightly mixed with grey; thorax ochreous white with a few dark scales; pectus, legs, and abdomen brown mixed with grey, the last with the 1st segment ochreous white; the tarsi slightly ringed with white. Fore wing with the costal area broadly ochreous white irrorated with brown extending at base to inner margin and leaving the costal edge brown, the rest of wing purplish fuscous with a greyish tinge; antemedial line dark, a minute white striga before it at costa, very minutely dentate and oblique from below costa to median nervure, then acutely angled outwards and oblique to inner margin near base; two black discoidal points; postmedial line white, slightly defined on inner side by brown on the pale costal area and very oblique to vein 6 where it is acutely angled outwards, then with a brown line followed by an ochreous band on its outer side, oblique and slightly sinuous to submedian fold and bent outwards to inner margin, some white striæ beyond it from costa; subterminal line with slight brown streak with white striga beyond it below costa, then greyish defined on each side by fuscous and incurved below vein 3; a series of minute black points with ochreous marks before them and some white scales on their outer side before termen, the points forming slight streaks towards the pale costal area; a fine dark terminal line; cilia with fine pale lines at base and near tips. Hind wing purplish fuscous with a greyish tinge, the base ochreous white; an oblique black discoidal bar; postmedial line dark slightly defined on outer side by whitish and with a rufous tinge beyond it, angled outwards at middle; a series of minute black points before termen; a fine dark terminal line; cilia with fine pale line at base and pale tips; the underside greyish suffused and irrorated with brown, a black discoidal spot.

♀. Thorax, base of abdomen, and costal area of fore wing more ochreous and not irrorated with brown.

Hab. Borneo, Sarawak, 1 ♂, 1 ♀ type *morma*; Br. New Guinea, Dinawa, type† *pratti* in Coll. Bethune-Baker; New Britain, type† ♀ in Coll. Rothschild. *Exp.* 18 millim.

5370. Oruza semilux.

Selenis semilux, Wlk. xxxiii. 1069 (1865); Hmpsn. Moths Ind. ii. p. 345.
Xanthoptera semifusca, Snell. Tijd. v. Ent. xxiii. p. 61. pl. 5. f. 8 (1880).

Head and tegulæ black-brown; thorax white faintly tinged with rufous; abdomen black-brown with white band at base; pectus, legs, and ventral surface of abdomen white faintly tinged with rufous. Fore wing black-brown, the costal area white tinged with rufous, extending to inner margin on basal area, the costal edge blackish

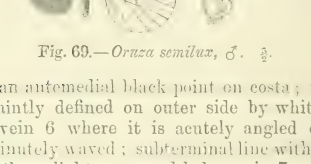

Fig. 69.—Oruza semilux, ♂. ⅔.

towards base; an antemedial black point on costa; postmedial line slight, black faintly defined on outer side by white, very oblique from costa to vein 6 where it is acutely angled outwards, then incurved and minutely waved; subterminal line with diffused brown bar from costa, then slight, excurved below vein 7, on the dark area minutely waved and faintly defined on outer side by grey; a series of black points just before termen with slight white striæ on their outer edges and some yellow before them at discal fold: a fine waved black terminal line and yellowish line at base of cilia. Hind wing black-brown irrorated with black, the base white; a faint blackish discoidal striga: a faint blackish postmedial line, oblique from costa to vein 4, then minutely waved and with slight rufous marks beyond it; faint traces of a curved minutely waved subterminal line; a series of minute black points just before termen; a fine waved black terminal line and yellowish line at base of cilia: the underside white irrorated with fuscous, a black discoidal point, indistinct curved postmedial and subterminal lines, and a series of black points before termen.

Hab. PUNJAB, Allahabad, 1 ♀, Manpuri, 2 ♀: BENGAL, Calcutta, 1 ♂; BOMBAY, 4 ♀, Kanara, Karwar (*Bell*), 1 ♀: MADRAS, Nilgiris (*Hampson*), 2 ♀: CEYLON (*Templeton*), 1 ♂, 2 ♀ type: SINGAPORE (*Ridley*), 1 ♀; CELEBES, type † *semifusca* in Coll. Snellen; QUEENSLAND, Brisbane (*Turner*), 1 ♀. *Exp.* 20–24 millim.

5371. Oruza divisa.

Selenis aicica, Wlk. Trans. Ent. Soc. (3) i. p. 107 (1862); Moore, Lep. Ceyl. iii. p. 210, pl. 174. f. 7; Hmpsn. Moths Ind. ii. p. 345.
Selenis laeta, Butl. Ill. Het. B. M. v. p. 11. pl. 84. f. 1 (1878).
Xanthoptera semirufa, Snell. Tijd. v. Ent. xxii. p. 62 (1880).
Mestleta lathræa, Holl. Psyche, vii. p. 114 (1894).
Zagira bicolora, Beth.-Baker, Nov. Zool. xiii. p. 213 (1906).

Head and tegulæ greyish rufous; thorax pure white; abdomen

greyish rufous with a pure white band at base: pectus, legs, and ventral surface of abdomen white, the legs slightly tinged with brown. Fore wing greyish rufous, the costal area broadly white and very slightly irrorated with brown, extending to inner margin on basal area; an antemedial black point on costa; two slight discoidal black points; postmedial line with black striga from costa, faint and very oblique to vein 6, then brown defined on inner side by white, inwardly oblique and slightly sinuous, some white points with fuscous streaks between them beyond it on costa; subterminal line faint and rufous on the white area, then punctiform, white slightly defined on inner side by brown, slightly excurved below vein 7 and at middle; a series of black points before termen defined on outer side by white; a fine dark terminal line. Hind wing greyish rufous, the base and inner margin to postmedial line pure white; a faint discoidal striga and sinuous postmedial line; subterminal line white, punctiform, slightly defined on inner side by brown; a series of black points before termen defined on outer side by white; a fine black terminal line; the underside white tinged with rufous, a small brown discoidal spot, indistinct curved postmedial and subterminal lines, and a series of black points before termen.

Hab. Lagos (*Boag*), 1 ♀; Gold Coast, Aburi (*Johnstone*), 1 ♀, Kumasi (*Whiteside*), 1 ♀; S. Nigeria, Old Calabar (*Sampson*), 1 ♀; Gaboon, Ogové R., 1 ♀, co-type *lathrea*; Japan, Hakone (*Leech*), 1 ♂, Kiushiu (*Leech*), 2 ♀, Yokohama (*Jonas*), 1 ♀ type *lauta*; Centr. China, Kiukiang (*Pryer*), 2 ♂; Punjab, Dharmsála (*Hocking*), 1 ♀; Bombay, 1 ♀; Ceylon, 1 ♀; Singapore (*Ridley*), 1 ♂; Java, 1 ♀. *Exp.* 18–22 millim. Type† *semirufa* in Coll. Snellen.

5372. Oruza latifera. (Plate CLVI. fig. 4.)

Acidalia latifera, Wlk. Proc. N. H. Soc. Glasg. i. p. 375 (1873).
Selenis costalis, Butl. A. M. N. H. (4) xvi. p. 409 (1875).
Mestleta discifascia, Holl. Psyche, vii. p. 113 (1894).

Head and tegulæ brown slightly mixed with white; thorax white; abdomen rufous with white band at base and white segmental lines on terminal segments; pectus, legs, and ventral surface of abdomen white faintly tinged with brown. Fore wing greyish rufous, the costal area very broadly white slightly tinged with rufous, extending to inner margin on basal area; traces of a double blackish antemedial line with black point on the outer line at costa, excurved below costa, then very oblique; two black discoidal points; postmedial line dark defined on outer side by white, very oblique from costa to vein 6, then inwardly oblique and slightly sinuous, some white points with black points between them beyond it on costa; subterminal line white slightly defined on inner side by brown, rufous and almost obsolete on the white area, slightly excurved below vein 7 and at middle; a series of black points defined on outer side by grey just before termen;

a fine dark terminal line. Hind wing greyish rufous with slight dark irroration, the base white; a dark discoidal striga; postmedial line double filled in with white, excurved below costa, then slightly sinuous, a diffused yellowish band beyond it; a curved whitish subterminal line; a series of black points just before termen; a fine black terminal line; the underside white thickly irrorated with brown, a black discoidal point, indistinct postmedial and subterminal lines, and series of black points before termen.

Hab. Sierra Leone (*Clements, Dudgeon*), 2 ♀; S. Nigeria, Old Calabar (*Crompton*), 1 ♀, Olokemeji (*Dudgeon*), 1 ♀, Ogové R., 1 ♂ co-type *discifascia*: Congo (*Marsden*). 1 ♀ type; Gaboon; Mashonaland (*Dobbie*), 1 ♀; Transvaal, White R. (*Cooke*), 1 ♀; Natal, Durban (*Burrows, Leigh*), 1 ♂, 3 ♀ type *costalis*. *Exp.* 16–22 millim.

5373. Oruza rufiplaga. (Plate CLVI. fig. 5.)

Vittappressa rufiplaga, Beth.-Baker, Nov. Zool. xiii. p. 206 (1906).

♀. Head, thorax, and abdomen violaceous grey-white, the head and base of tegulæ suffused with rufous; palpi black-brown, white at tips; antennæ ringed with blackish; fore coxæ, femora, and tibiæ blackish, the hind legs with some blackish at extremity of femora and base of tibia. Fore wing violaceous grey-white; the costal edge rufous towards base; a faint waved white subbasal line from costa to vein 1; antemedial line white faintly defined on each side by brown, bent inwards to costa, then sinuous; a blackish point on its outer side at costa; a slight rufous discoidal lunule; postmedial line white faintly defined on each side by brown and with black points on its inner side at costa and inner margin, very oblique from costa to vein 7, somewhat incurved at discal fold and strongly below vein 4, a broad rufous band with highly sinuate edges from termen below apex to postmedial line at discal fold and thence to inner margin; some slight brown streaks on apical part of costa; subterminal line white, dentate, almost obsolete towards costa, angled inwards in discal fold and incurved below vein 3, defined on outer side by rufous lunules below the rufous band and with rufous fascia from it to termen below vein 3; a terminal series of slight rufous spots; cilia rufous at the band and fascia. Hind wing violaceous grey-white; a waved white medial line angled inwards at discal fold and excurved at median nervules, defined on inner side by a narrow rufous band towards inner margin; a waved white subterminal line defined on outer side by rufous lunules below vein 6 and with rufous band between it and medial line below vein 4; a fine waved rufous terminal line; the underside with the costal and terminal areas irrorated with fuscous, a dark bar from middle of costa, diffused curved subterminal band, and terminal series of small lunules.

Hab. Br. New Guinea, Dinawa (*Pratt*), type ♀ in Coll. Bethune-Baker. *Exp.* 34 millim.

5374. Oruza lacteicosta.

Capnodes lacteicosta, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 460, pl. A. f. 23 (1897).

Head and tegulæ pale rufous; prothorax creamy white, the rest of thorax deep rufous; abdomen white dorsally suffused with rufous except towards extremity; pectus and legs creamy white. Fore wing chocolate-red, the costal area and the area beyond postmedial line creamy white with a triangular chocolate-red patch on termen below apex; traces of an oblique dark antemedial line from the costal area to inner margin with slight pale mark on its inner side below the cell; reniform a very oblique creamy white lunule with its lower extremity bifid; postmedial line dark, oblique from costa to vein 7, then defined by white on outer side and with another indistinct white line beyond it, incurved in discal fold, excurved beyond lower angle of cell, then incurved, some chocolate points beyond it on costa: subterminal line whitish, angled outwards at vein 7 and with a chocolate streak before it, angled inwards at vein 6 and outwards to near termen at veins 4, 3, then incurved; a terminal series of slight black points; cilia chocolate-red from apex to vein 4, then pale. Hind wing chocolate-red with slight black irroration, a large creamy white patch on tornal area extending to vein 4; traces of a dark discoidal spot and of a medial line excurved beyond the cell; postmedial line obsolete on costal half, on inner half defining the pale patch, blackish defined by white on outer side, sinuous; subterminal line whitish, oblique and almost obsolete on costal half, then incurved on the pale patch and defined on inner side by pale rufous; a fine black terminal line with white striga before it at apex, interrupted below apex and on the pale patch; a fine pale line at base of cilia; the underside creamy white faintly tinged with rufous, an indistinct dark discoidal lunule and curved postmedial line.

Hab. Ceylon, Ukuwella (*Mackwood*), 1 ♂ type; Singapore (*Ridley*), 1 ♂, 1 ♀; Borneo, Sandakan (*Pryer*), 1 ♀. *Exp.* 24 millim.

5375. Oruza glaucotorna, n. sp. (Plate CLVI. fig. 6.)

Head fuscous slightly mixed with grey; thorax and base of abdomen white suffused with rufous, medial segments of abdomen rufous, the terminal segments white with a dark patch at base of anal tuft; pectus and ventral surface of abdomen creamy white, the fore legs fuscous in front. Fore wing chocolate-red, the costal area white slightly irrorated with brown; a faint sinuous dark antemedial line with slight whitish striæ on it in and below cell; a minute round white spot at lower angle of cell; postmedial line whitish slightly defined by fuscous on inner side, slightly curved below costa and at middle and incurved at discal fold and below vein 4, some fuscous points beyond it on costa, a diffused whitish band from vein 4 to inner margin; subterminal line whitish, angled

outwards below vein 7 and at middle, then incurved and somewhat dentate with some white suffusion beyond it; a terminal series of black points; cilia whitish tinged with red towards tornus. Hind wing chocolate-red with a large white patch irrorated with red on tornal area; a black discoidal striga; postmedial line slight, whitish, oblique from costa to vein 4, then inwardly oblique, sinuous, and defining the inner edge of the pale patch; subterminal line represented by traces of pale and black points from costa to vein 3 where it is angled outwards, then incurved, dentate, with small rufous spot beyond it and rufous lunule before it at inner margin; a terminal series of black points; cilia whitish tinged with red towards tornus; the underside whitish irrorated with brown and suffused with brown on costal area, a blackish discoidal spot and indistinct diffused curved postmedial and subterminal lines.

Hab. Japan, Kiushiu (*Leech*), 1 ♂ type; Corea, Gensan (*Leech*), 2 ♀. *Exp.* 24 millim.

5376. Oruza xanthopera. (Plate CLVI. fig. 7.)

Oruza xanthopera, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 208 (1902).

♀. Head blackish, the vertex with some yellowish; thorax yellowish with red-brown patches on patagia; pectus and legs yellow, the fore legs suffused with fuscous in front; abdomen yellow dorsally suffused with purple-brown. Fore wing deep purple-brown irrorated with a few black scales; the base yellowish; costa brownish with a yellowish streak below it to postmedial line; antemedial line dark defined on inner side by yellowish, arising below costa, straight and somewhat oblique; a black point at lower angle of cell and yellowish point at upper angle; postmedial line dark slightly defined on outer side by yellowish, arising below costa, slightly incurved at discal fold and to inner margin; a pale yellow patch on terminal area just before apex, slightly irrorated with black above and with crimson near inner edge, crossed by the oblique slightly waved brown subterminal line ending on termen above vein 4; a small yellow subterminal spot above tornus; a terminal series of black points; cilia intersected with yellow. Hind wing deep purple-brown sparsely irrorated with black scales; a small orange-yellow patch at base of inner margin; a black point at lower angle of cell; postmedial line slight defined on outer side by yellowish, excurved below costa and from vein 4 to inner margin, a large irregular yellow patch irrorated with rufous from it below costa to near termen at discal fold, crossed by a brownish line, and a small patch on inner margin near tornus; a terminal series of black points and some yellow at discal fold; cilia intersected with yellow; the underside yellowish, the basal area tinged with red except towards inner margin, bounded by the indistinct oblique medial line; the apex and the area between veins 4 and 2 tinged with red and irrorated with black.

Hab. Assam, Khásis, 1 ♀ type. *Exp.* 30 millim.

5377. **Oruza rectilineata**, n. sp. (Plate CLVI. fig. 8.)

♂. Head, thorax, and abdomen chocolate-red; prothorax with a white band; pectus, legs, and abdomen whitish tinged with rufous. Fore wing chocolate-red; a pure white fascia on costa; antemedial line whitish defined on outer side by brown, straight, from subcostal nervure to inner margin; a white point defined by brown at lower angle of cell; postmedial line whitish defined on inner side by brown, oblique, from below costa to inner margin; a subterminal series of small fuscous spots, excurved at middle, then incurved; a terminal series of black points. Hind wing chocolate-red; a black point at lower angle of cell; postmedial line whitish defined on inner side by fuscous, straight; a subterminal series of small fuscous spots, excurved at middle, then incurved; a terminal series of black points; the underside white slightly tinged with rufous.

Hab. Br. Guiana, Rockstone (*Kaye*), 1 ♂ type. *Exp.* 24 millim.

5378. **Oruza leucocraspia**, n. sp. (Plate CLVI. fig. 9.)

♂. Head ochreous mixed with rufous; palpi at sides and base of antennæ blackish; thorax and abdomen deep chocolate-red, the prothorax with white band; pectus, legs, and ventral surface of abdomen white tinged with brown. Fore wing deep chocolate-red; a white fascia on costa narrowing to a point before apex; antemedial line faint, yellowish, sinuous, from subcostal nervure to inner margin, a white point ringed with black beyond it in cell; a comma-shaped white discoidal mark defined by black; postmedial line white slightly defined on inner side by fuscous, arising below costa, oblique and very slightly incurved below vein 5; subterminal line slight, white, dentate, angled outwards below costa and at vein 4, defined on outer side by slight blackish points; a terminal series of slight black lunules with white striæ beyond them at base of cilia which are intersected with white. Hind wing deep chocolate-red; a black point at lower angle of cell; postmedial line whitish slightly defined on inner side by fuscous, angled outwards at discal fold, in which there is a slight yellowish streak from it to the minutely dentate whitish subterminal line which is angled outwards at vein 4; a terminal series of slight black lunules with white striæ beyond them at base of cilia which are intersected with white; the underside brownish white with faint dark discoidal striga and diffused curved postmedial line.

Hab. Panama, La Chorrera (*Dolby-Tyler*), 1 ♂ type. *Exp.* 26 millim.

5379. **Oruza albicostata**.

Anisodes albicostata, Druce, Biol. Centr.-Am., Het. ii. p. 537. pl. 99. f. 8 (1899).

Head, thorax, and abdomen rufous tinged with ochreous; prothorax with white band; palpi and fore legs tinged with fuscous;

pectus and ventral surface of abdomen ochreous. Fore wing rufous tinged with ochreous and irrorated with black, the costal area whitish narrowing to a point at apex, the costal edge tinged with rufous; antemedial line fuscous defined on inner side by yellowish, curved, from subcostal nervure to inner margin; a fuscous discoidal point; postmedial line fuscous defined on outer side by yellowish, oblique, from below costa to inner margin; subterminal line yellowish defined on outer side by fuscous, waved, incurved below vein 3; a terminal series of black points; cilia with a fine yellowish line at base followed by some fuscous. Hind wing rufous mixed with yellowish and irrorated with black; a fuscous discoidal striga; postmedial line yellowish defined on inner side by fuscous, curved; subterminal line faint, yellowish defined on outer side by fuscous, waved, excurved at middle and incurved below costa and towards tornus; a terminal series of black points; cilia with a fine yellowish line at base followed by some fuscous; the underside pale yellowish slightly irrorated with brown, a slight discoidal striga, and curved postmedial line.

Hab. Mexico, Amula (*H. H. Smith*). 1 ♂, 2 ♀ type, Godman-Salvin Coll. *Exp.* 30–32 millim.

*5380. Oruza costata. (Plate CLVI. fig. 10.)

Oruza costata, Wlk. xxiv. 1089 (1862); Hmpsn. Moths Ind. ii. p. 350.

♀. Head, thorax, and abdomen rufous; tips of tegulæ and a band behind them ochreous white; palpi ochreous white in front. Fore wing rufous; an ochreous white fascia just below costa from base to apex; antemedial line ochreous white defined on outer side by brownish, slightly incurved; a slight dark discoidal lunule; postmedial line ochreous white defined on inner side by brownish, very slightly incurved, the veins beyond it slightly streaked with ochreous; subterminal line ochreous, incurved from costa to vein 4, then dentate on the veins to near termen; a fine ochreous line at base of cilia which are intersected with ochreous at the veins. Hind wing rufous, the veins streaked with ochreous; a black point at lower angle of cell; postmedial line ochreous, defined on inner side by brownish, slightly excurved; subterminal line ochreous, incurved from costa to vein 4, then dentate on the veins to near termen; a fine ochreous line at base of cilia; the underside white tinged with purplish pink.

Hab. "India," type † ♀ in Mus. Oxon. *Exp.* 30 millim.

5381. Oruza mira.

Selenis mira, Butl. Ill. Het. B. M. iii. p. 29, pl. 47. f. 6 (1879).
Caeruleba pallicostata, Staud. Rom. Mém. vi. p. 601, pl. 12. f. 6 (1892); id. Cat. Lep. pal. p. 253.

Head, thorax, and abdomen deep rufous, the prothorax whitish, the abdomen with slight whitish segmental lines; pectus, hind legs,

and ventral surface of abdomen whitish. Fore wing deep rufous with slight dark irroration, the costal area ochreous; antemedial line white, inwardly oblique, straight; a sinuous whitish discoidal striga; postmedial line white with fine brown line on its inner side, inwardly oblique, straight; subterminal line white, angled outwards to near termen on veins 4, 3, then sinuous and bent outwards to tornus; a fine whitish line at base of cilia. Hind wing deep rufous with slight dark irroration; a sinuous whitish discoidal striga; postmedial line white with a fine brown line on its inner side, straight; subterminal line whitish, oblique to vein 5, then somewhat dentate; a fine whitish line at base of cilia; the underside whitish irrorated with brown, a diffused brownish postmedial line.

Ab. 1. The type. Head, thorax, abdomen, and wings more suffused with fuscous.

Hab. W. Africa (*Dudgeon*), 1 ♀; E. Siberia, Amurland, Ussuri; Japan, Hakodaté, 1 ♂ type, Fushiki (*Leech*), 1 ♀, Yokohama (*Pryer*), 1 ♂; Corea, Gensan (*Leech*), 1 ♀; W. China, Chang-yang (*Pratt*), 1 ♀. *Exp.* 22–28 millim.

*5382. Oruza crocodeta. (Plate CLVI. fig. 11.)

Xanthoptera crocodeta, Turner, Trans. R. Soc. S. Austr. xxvii. p. 11 (1903).

♂. Chocolate red-brown; thorax with pale reddish ochreous band behind tegulæ; pectus and ventral surface of abdomen whitish. Fore wing with very slight darker irroration: a reddish ochreous costal fascia narrowing to apex; an erect ochreous antemedial line defined on each side by dark brown, obsolete on costal area; a slight discoidal bar; an erect ochreous postmedial line defined on each side by dark brown and obsolete on costal area; the veins of terminal area and cilia finely streaked with ochreous: an ochreous subterminal line almost straight from costa to vein 5, then dentate on the veins. Hind wing with waved ochreous discoidal bar; a nearly straight ochreous postmedial line defined on each side by brown; the veins of terminal area and cilia finely streaked with ochreous; an ochreous subterminal line, oblique and nearly straight from costa to vein 5, then dentate on the veins; the underside whitish tinged with rufous, traces of a medial line.

Hab. Queensland, Brisbane, type† ♂ in Coll. Turner. *Exp.* 25 millim.

5383. Oruza atriapicata, n. sp. (Plate CLVI. fig. 12.)

♂. Head, thorax, and abdomen ochreous whitish tinged with pale rufous; antennæ ringed with black towards base; palpi blackish except towards tips; fore legs blackish in front. Fore wing ochreous whitish suffused with pale rufous; small black subbasal, antemedial, and medial black spots on costa; an elliptical blackish discoidal spot with white point on it at lower angle of cell; postmedial line whitish, oblique, from costa to inner margin,

some black points beyond it on costa; subterminal line whitish with oblique black bar beyond it from apex, then with slight fuscous points on its outer edge, excurved below vein 7 and incurved at discal fold, then dentate; a terminal series of faint dark points; a fine pale line at base of cilia. Hind wing ochreous whitish suffused with pale rufous; a black point at lower angle of cell; postmedial line whitish with a fine brown line on its inner edge, very slightly excurved; subterminal line whitish with a series of fuscous points on its outer edge, minutely dentate, excurved at middle; a crenulate brownish terminal line and fine pale line at base of cilia; the underside whitish tinged and irrorated with brown; a blackish discoidal bar, minutely dentate postmedial line, traces of subterminal line, and terminal series of points.

Hab. Borneo, Sandakan (*Pryer*), 1 ♂ type. *Exp.* 22 millim.

5384. Oruza cariosa. (Plate CLVI. fig. 13.)

Thermesia cariosa, Lucas, Trans. Nat. Hist Soc. Queensl. i. p. 8 (1894).
Oruza leptogramma, Meyr. Trans. Ent. Soc. 1902, p. 36.

Head, thorax, and abdomen white; the palpi, frons, antennæ, and tegulæ pale yellow; tibiæ and tarsi tinged with yellow. Fore wing white; the costa yellowish towards base; a black antemedial point on costa and curved pale fulvous yellow line from cell to inner margin; two black discoidal points; postmedial line yellow with black point at costa, excurved to vein 4, then incurved; subterminal line white with a pale fulvous yellow band on its inner side and the area beyond it pale fulvous yellow except at apex, excurved at middle; some black points just before termen towards apex; cilia tinged with fulvous yellow. Hind wing white; a slight yellow antemedial line; a black discoidal point; postmedial line yellow, slightly excurved beyond the cell, then oblique; subterminal line white defined on inner side by fulvous yellow, the area beyond it fulvous yellow, excurved and very minutely waved at middle and bent outwards to tornus; some black points just before termen towards apex and a fine dark terminal line; cilia tinged with yellow.

Hab. N. Guinea, Milne Bay (*Meek*), 1 ♀; Queensland, Duaringa (*Arnold*), 1 ♂, 1 ♀, type† ♂ *leptogramma* in Coll. Meyrick, Townsville (*Dodd*), 1 ♀, Brisbane (*Turner*), 1 ♂, 1 ♀ type† in Coll. Lucas; Samoa (*Mathew*), 1 ♂. *Exp.* 16–20 millim.

Genus ARASADA.

	Type.
Arasada, Moore, Lep. Ceyl. iii. p. 188 (1884)	*pyraliformis.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head and moderately fringed with hair in front, the 3rd minute; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed chiefly with scales and without crests; tibiæ with the spurs long, fore and mid tibiæ of male fringed with long hair, the mid and hind tarsi fringed with long hair above except the two terminal joints; the abdomen without crests. Fore

wing with the apex somewhat produced and acute, the termen evenly curved and slightly crenulate; vein 3 from before angle of cell; 5 from just above angle; 6 from upper angle; 9, 10 strongly anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 shortly stalked; 5 nearly fully developed from just below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Hind wing with the postmedial line white.
  a. Fore wing purplish red with prominent white costal fascia ..... *albicosta*.
  b. Fore wing pale rufous with a yellowish tinge ..... *pyraliformis*.
B. Hind wing with the postmedial line not white ..... *javanica*.

5385. Arasada albicosta. (Plate CLVI. fig. 14.)

Oruza albicosta, Hmpsn. Moths Ind. ii. p. 349 (1894).

♀. Head and tegulæ deep chocolate-brown; thorax and abdomen pale rufous with a white band on prothorax; pectus, legs, and abdomen whitish tinged with rufous. Fore wing rufous tinged with flesh-pink and slightly irrorated with black, the costa white narrowing to a point near apex; traces of a waved yellowish antemedial line; a black point at lower angle of cell; postmedial line defined by yellowish on outer side, dentate, slightly incurved at discal fold and strongly below vein 4, two black points beyond it on costa; subterminal line faint, yellowish, waved, excurved at middle, with traces of a series of black points on its outer edge; a terminal series of slight black lunules defined on inner side by yellowish. Hind wing rufous irrorated with black; a black point at lower angle of cell; postmedial line pure white slightly defined on each side by fiery red, somewhat lunulate, very slightly angled outwards at vein 6, then oblique; traces of a subterminal series of black points; a terminal series of slight black lunules; the underside whitish tinged with brown, an indistinct dark discoidal striga and diffused oblique postmedial line.

Hab. Burma, Rangoon (*Scott*), 1 ♀ type; Singapore (*Ridley*), 1 ♀. *Exp.* 28–34 millim.

5386. Arasada pyraliformis.

Arasada pyraliformis, Moore, Lep. Ceyl. iii. p. 189, pl. 172. ff. 1, 1 *a* (1884); Hmpsn. Moths Ind. ii. p. 348.

Head, thorax, and abdomen rufous; pectus and ventral surface of abdomen paler, the hind legs whitish. Fore wing pale rufous irrorated with black, the costa whitish, narrowing to a point at apex; a faint yellowish antemedial line, excurved below median nervure and incurved at vein 1; a small black spot at lower angle of cell; postmedial line faint, yellowish, minutely waved, slightly angled inwards in discal fold and oblique below vein 4 to middle of inner margin, some black points beyond it on costa; a subterminal

series of faint yellowish lunules defined on outer side by black points from below costa to discal fold and above inner margin, excurved at middle, then oblique; a terminal series of small triangular black spots. Hind wing pale rufous irrorated with black; two black discoidal points; postmedial line white, from

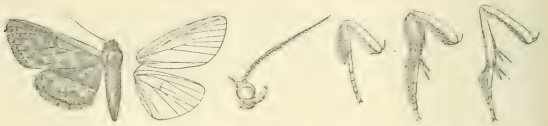

Fig. 70.—*Arasada pyraliformis*, ♂. ½.

below costa to inner margin, oblique and very minutely waved; a faint pale waved subterminal line with traces of a series of fuscous spots on its outer edge, angled inwards at veins 6 and 2; a terminal series of small triangular black spots; the underside whitish tinged with brown, a blackish point at lower angle of cell and diffused sinuous brownish postmedial and subterminal shades.

Hab. Ceylon, 1 ♂, 1 ♀, type. *Exp.* 40 millim.

Larva. Head large and produced upwards; two anterior pairs of prolegs absent; colour green with a dorsal yellowish band and lateral streaks; stigmata yellow; head and thoracic segments at sides irrorated with black, 1st somite with lateral purple-brown streaks; a blackish line between 4th and 5th somites; some blackish lateral marks on terminal somites; pupates in a rolled up portion of leaf.

5387. Arasada javanica, n. sp. (Plate CLVI. fig. 15.)

Oruza pyraliformis, Hmpsn. Moths Ind. ii. p. 348 (part.).

♂. Head and tegulæ reddish brown; thorax and abdomen ochreous tinged with rufous, the ventral surface of abdomen whitish. Fore wing ochreous tinged with rufous and very slightly irrorated with black; traces of a waved brownish antemedial line from below costa to inner margin; two black discoidal points; postmedial line brownish, lunulate, angled inwards at discal fold and oblique below vein 4, some black points beyond it on costa; subterminal line defined on each side by brownish shades and with a series of slight blackish points on its outer edge, minutely waved, excurved below vein 7 and at middle, then incurved; a terminal series of black points. Hind wing ochreous tinged with rufous and slightly irrorated with black; two slight black discoidal points; postmedial line indistinct, dark, rather diffused on inner side, incurved at discal fold, then waved; subterminal line defined on outer side by a faint dark shade and traces of a series of fuscous points, minutely waved, excurved at middle; a terminal series of slight black lunules; the underside ochreous white with faint postmedial and subterminal brownish shade.

Hab. Java (*Horsfield*), 1 ♂ type. *Exp.* 38 millim.

Genus **METASADA**, nov.

Type, *M. polycesta*.

Proboscis fully developed; palpi upturned, slender, the 2nd joint reaching to vertex of head and fringed with scales in front and behind at extremity, the 3rd short, porrect; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair, the spurs long; abdomen with small dorsal crest at base only. Fore wing with the apex somewhat produced and acute, the termen evenly curved, crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9, 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with the termen crenulate; veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5388. **Metasada polycesta.**

Zagira polycesta, Turner, P. Linn. Soc. N. S. W. xxvii. p. 120 (1902).

♂. Head blood-red mixed with some whitish; palpi whitish at tips; antennæ whitish ringed with brown; tegulæ and prothorax whitish, the rest of thorax rufous, the scales pale at tips; pectus and legs whitish suffused with rufous, the fore legs with fuscous; abdomen rufous with whitish segmental lines and some fuscous suffusion towards extremity, the basal crest blackish, the ventral surface whitish. Fore wing yellowish suffused with rufous and sparsely irrorated with black, the veins with greyish streaks, the

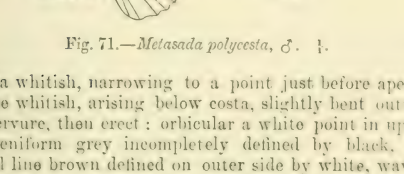

Fig. 71.—*Metasada polycesta*, ♂. ½.

costal area whitish, narrowing to a point just before apex; antemedial line whitish, arising below costa, slightly bent outwards at median nervure, then erect; orbicular a white point in upper part of cell; reniform grey incompletely defined by black, narrow; postmedial line brown defined on outer side by white, waved from below costa to vein 4 where it is angled outwards, then incurved and sinuous, a pale grey patch beyond it to subterminal line from vein 3 to inner margin; subterminal line white, dentate; a crenulate red-brown terminal line with dark points in the interspaces; a fine whitish line at base of cilia. Hind wing yellowish suffused with rufous and slightly irrorated with black on terminal area; postmedial line brownish defined on outer side by white, sinuous, excurved at median nervules, a pale grey patch beyond it from vein 3 to inner margin; a subterminal series of white points;

a fine crenulate red-brown terminal line with dark points at the interspaces; cilia with a fine white line at base; the underside whitish suffused with red, a dark discoidal lunule and curved postmedial line.

Hab. N. S. Wales (*Wood*), 1 ♂. *Exp.* 32 millim.

Genus **HYPOBLETA**.

Type.

Hypobleta, Turner, Tr. R. Soc. S. Austr. xxxii. p. 77 (1908) ..... *cymæa*.

Proboscis fully developed; palpi obliquely porrect, slender, the 2nd joint extending about one and a half times length of head and fringed with hair above at extremity, the 3rd joint short; frons smooth; eyes large, round; antennæ of male annulate; head and thorax clothed with scales and without crests; fore coxæ with tufts of long hair; fore and hind tibiæ with tufts of hair at extremity, hind tibiæ with slight fringe of hair below before the medial spurs; abdomen with dorsal crest at base only. Fore wing triangular, the apex somewhat acute, the termen crenulate; vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with the termen crenulate; veins 3, 4 from angle of cell; 5 from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

*5389. Hypobleta cymæa.

Hypobleta cymæa, Turner, Tr. R. Soc. S. Austr. xxxii. p. 78 (1908).

♂. Head and thorax ochreous white; palpi black at sides; the hair on fore coxæ and fore and mid tibiæ fuscous; abdomen ochreous white with fuscous dorsal bands at middle and dorsal spots on terminal segments. Fore wing ochreous white irrorated with brown and black; a black point in middle of cell and slight

Fig. 72.—*Hypobleta cymæa*, ♂. $\frac{2}{3}$.

discoidal lunule; an indistinct double postmedial line, bent outwards below costa, then dentate, incurved at discal fold and strongly below vein 4; subterminal line whitish defined on outer side by blackish dentate marks and with some blackish on each side of it below submedian fold, angled outwards at veins 7, 6, 4, 3, inwards at discal fold and incurved in submedian fold; a terminal series of black points. Hind wing ochreous white slightly irrorated with brown and black; a black discoidal point and faint slightly waved

medial line; a blackish dentate postmedial line, double and rather diffused below vein 2; a terminal series of black points.

Hab. Queensland, Kuranda (*Dodd*), type† ♂ in Coll. Turner. *Exp.* 22 millim.

Genus ŒNOPTERA, nov.

Type, *Œ. purpurea.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd short; frons smooth; eyes large, round; antennæ of male laminate and ciliated, the basal joint with tuft of hair; thorax clothed with scales and hair mixed and without crests. Fore wing with the apex somewhat produced and acute, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8 and 10 stalked, 9 absent, 7 from well beyond 10; 11 from cell. Hind wing with veins 3, 4, shortly stalked; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing deep purple-red ..... *purpurea.*
B. Fore wing yellowish tinged with rufous ..... *acidalica.*

5390. Œnoptera purpurea, n. sp.

♂. Head and thorax purplish red mixed with some ochreous; legs paler red, the tarsi with blackish rings; abdomen dark brown, the ventral surface pale red. Fore wing purplish red mixed with some ochreous and irrorated with blackish, the terminal area

Fig. 73.—*Œnoptera purpurea*, ♂. $\frac{2}{1}$.

darker; antemedial line indistinct, dark, defined by yellowish towards costa, angled outwards below costa, then oblique; postmedial line very indistinct, yellowish, oblique from costa to vein 6, then inwardly oblique, the costa beyond it with alternating yellow and black streaks; a series of black striæ just before termen with slight yellowish marks beyond them on termen; cilia black at apex, then yellow to middle and chequered black and yellow towards tornus. Hind wing dark brown with a greyish tinge, the cilia with fine ochreous line at base and ochreous tips. Underside of fore wing dark brown, the costal area reddish yellow irrorated with black to middle and from postmedial line to apex, the inner area whitish; hind wing reddish yellow irrorated with black, a black discoidal point and curved postmedial line.

Hab. Ceylon, Kegalle (*Alston*), 1 ♂ type. *Exp.* 14 millim.

5391. **Œnoptera acidalica**, n. sp. (Plate CLVI. fig. 16.)

♀. Head, thorax, and abdomen pale rufous irrorated with a few black scales; antennæ white slightly ringed with black; patagia with orange-red patches. Fore wing yellowish white suffused with rufous and slightly irrorated with black; the costal edge black towards base; small black spots in cell towards extremity and on discocellulars; a faint rufous medial shade with two black points on it towards costa, excurved to just beyond the cell, then oblique; a faint minutely waved rufous postmedial line with small black spot on it at discal fold, excurved from below costa to vein 4, then oblique; traces of a pale minutely waved subterminal line defined on each side by brownish suffusion; a terminal series of small black spots. Hind wing yellowish white suffused with rufous and irrorated with a few black scales; a small black discoidal spot; traces of rufous subbasal, medial, and postmedial lines; an indistinct pale waved subterminal line slightly defined on each side by rufous suffusion; a terminal series of prominent black points: the underside white with diffused brown medial and subterminal bands and slight black discoidal lunule.

Hab. Ceylon, Puttalam (*Pole*), 1 ♀ type. *Exp.* 16 millim.

Genus **PSEUDCRASPEDIA**.

Type.

Pseudcraspedia, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 704 (1898). *punctata*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and slenderly scaled, the 3rd short; frons smooth; eyes large, round; antennæ of male somewhat laminate and almost simple; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled, the spurs long; abdomen with dorsal series of slight crests. Fore wing long and narrow, the apex rounded, the termen obliquely curved and not crenulate; veins 3, 4 shortly stalked; 5 from just above angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 shortly stalked; 5 obsolescent from middle of discocellulars; 6, 7 stalked; 8 anastomosing with the cell near base only.

A. Hind wing with the medial area white ..... *leucozona*.
B. Hind wing with the medial area not white.
  a. Fore wing with black spot on outer edge of subterminal line at discal fold ..... *prosticta*.
  b. Fore wing without black spot on outer edge of subterminal line at discal fold.
    a^1. Fore wing with the postmedial line angled inwards to black points at discal and submedian folds ..... *punctata*.
    b^1. Fore wing with the postmedial line not angled inwards to black points at discal and submedian folds *basipunctaria*.

5392. **Pseudcraspedia leucozona**, n. sp. (Plate CLVI. fig. 17.)

♂. Palpi, frons, and antennæ except at base fuscous; vertex of head, tegulæ, and patagia white; dorsum of thorax and abdomen fuscous mixed with some white; pectus, legs, and ventral surface of abdomen white, the fore legs fuscous in front. Fore wing

fuscous mixed with some white, the costa, apical area and termen except towards tornus white slightly irrorated with fuscous; the terminal half of costa with alternating black and white streaks; a very oblique white antemedial line from cell to inner margin; a blackish line from costa beyond middle, very oblique below vein 6; postmedial line blackish defined on outer side by white, oblique below vein 6; traces of a sinuous white subterminal line on inner half; a terminal series of black striæ defined on inner side by white towards tornus: cilia fuscous brown with slight white line near tips. Hind wing with the base white; the antemedial area fuscous brown slightly mixed with white and bounded by the dark subbasal and antemedial lines; dark postmedial and subterminal lines; the terminal area fuscous brown with a terminal series of black striæ defined on inner side by slight white lunules; cilia brown with a slight white line near tips; the underside with the basal and terminal areas brown, the postmedial area white.

Hab. Colombia, Sta. Marta (*Bouchard*), 1 ♂ type. *Exp.* 16 millim.

5393. **Pseudcraspedia prosticta**, n. sp. (Plate CLVI. fig. 18.)

♀. Head and thorax white slightly tinged with brown; palpi and frons blackish; antennæ ringed with black towards base; abdomen grey irrorated with red-brown; fore legs blackish in front; pectus, mid and hind legs, and ventral surface of abdomen whitish. Fore wing whitish suffused with rufous; the costa with seven small black spots; indistinct oblique subbasal and antemedial red lines from cell to inner margin: indistinct reddish spots at middle of cell and on discocellulars, each with one or two black scales; an indistinct oblique sinuous reddish postmedial line: an indistinct white subterminal line incurved at discal fold where there is a black spot on its outer edge and excurved below costa and at middle; terminal black points at apex, discal and submedian folds: cilia with fine white line at base and slight black marks at apex and discal fold. Hind wing whitish suffused and irrorated with rufous; a black discoidal point: slight minutely waved antemedial, medial, and postmedial rufous lines, the two latter with some black points on them towards inner margin; a slight waved rufous subterminal line; the termen with black points at discal and submedian folds; the underside greyish with black discoidal striga and diffused sinuous antemedial, postmedial, and subterminal fuscous bands.

Hab. Ceylon, Maskeliya (*Pole*), 1 ♀ type. *Exp.* 16 millim.

5394. **Pseudcraspedia punctata.**

Pseudcraspedia punctata, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 704 (1898).

Head, thorax, and abdomen rufous with a greyish tinge; palpi and sides of frons blackish; abdomen with the slight dorsal crests blackish and with lateral series of blackish points; fore legs blackish in front; mid and hind legs and ventral surface of abdomen

whitish. Fore wing rufous with a greyish tinge; slight black points at base of cell and above inner margin; subbasal black points on costa and below cell; antemedial points on costa and in cell; a black discoidal point with another above it on costa; a slight oblique postmedial black striga from costa, with diffused mark below it and faint oblique minutely waved brown line from it to inner margin, angled inwards to black points in discal and submedian folds, the costa beyond it with oblique black striæ with some black suffusion below them; subterminal line very faintly defined

Fig. 74.—*Pseudcraspedia punctata*, ♂. $\frac{3}{2}$.

by brown on each side, oblique and minutely waved; a terminal series of prominent black points. Hind wing rufous with a greyish tinge; a subbasal black bar on inner area; indistinct minutely waved brown medial and postmedial lines; subterminal line slightly defined on each side by brown, minutely waved; a terminal series of prominent black points; the underside whitish slightly tinged with rufous.

Hab. Uganda, Gondokoro (*Reynes-Colé*), 1 ♀; Br. E. Africa, Teita (*Jackson*), 1 ♀; Sikhim, 1800′ (*Dudgeon*), 1 ♀ type; Madras, Belgaum (*Watson*), 1 ♀; Tonkin, Haiphong (*Buckland*), 1 ♂; Pulo Laut (*Doherty*), 1 ♂. *Exp.* 14–16 millim.

5395. Pseudcraspedia basipunctaria.

Acidalia basipunctaria, Wlk. xxiii. 785 (1861); Dyar, Cat. Lep. N. Am. p. 298.

Pseudcraspedia melanosticta, Hmpsn. Trans. Ent. Soc. 1898, p. 256, pl. xvii. f. 6.

♂. Head, thorax, and abdomen white faintly tinged with rufous; palpi blackish towards tips; fore legs blackish in front. Fore wing whitish tinged with rufous; a subbasal black point on costa; antemedial black points on costa and in submedian fold; a black discoidal point with point above it on costa; postmedial line faint, rufous, obliquely downcurved from costa to vein 6, then sinuous to inner margin, some blackish points beyond it on costa; subterminal line very indistinct, pale, faintly defined on each side by rufous, waved; a terminal series of black points. Hind wing whitish suffused with rufous; a black discoidal point; a faint waved brown postmedial line with black point at inner margin; subterminal line very indistinct, pale defined on each side by brownish suffusion, waved; a terminal series of black points; the underside whitish faintly tinged with rufous, a dark discoidal point.

Hab. U.S.A., Florida (*Doubleday*), 2 ♂ type; St. Vincent, Kingstown (*H. H. Smith*), 2 ♂ type *melanosticta*. *Exp.* 12–16 millim.

Genus **LYCAUGESIA**, nov.

Type, *L. hypozonata*.

Proboscis aborted, minute; palpi upturned, the 2nd joint typically reaching to about middle of frons and moderately scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male ciliated, the basal joint large; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled, the spurs long; abdomen with dorsal series of crests. Fore wing rather narrow, the apex rounded, the termen evenly curved and not crenulate; vein 3 from well before angle of cell; 4, 5 from angle; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Palpi with the 2nd joint reaching to above vertex of head, the 3rd long.

5396. **Lycaugesia longipalpis.**

Pseudocraspedia longipalpis, Swinh. A. M. N. H. (7) viii. p. 18 (1901).

♂. Head, thorax, and abdomen rufous, the tips of tegulæ and middle of patagia with some blackish and crimson scales, the abdomen with some fuscous on dorsum at middle and extremity; palpi black at sides towards base, at extremity of 2nd joint, and near extremity of 3rd joint; fore legs blackish in front. Fore wing rufous irrorated with a few crimson scales: a black and crimson subbasal point above vein 1; an antemedial black point on costa and black and crimson points in cell and submedian fold; black points at middle of cell and on discocellulars; two obliquely

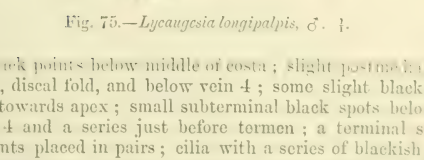

Fig. 75.—*Lycaugesia longipalpis*, ♂. ½.

placed black points below middle of costa; slight postmedial patch at vein 7, discal fold, and below vein 4; some slight black streaks on costa towards apex; small subterminal black spots below costa and vein 4 and a series just before termen; a terminal series of black points placed in pairs; cilia with a series of blackish points. Hind wing rufous sparsely irrorated with crimson and blackish scales; traces of a sinuous postmedial series of black points and a series just before termen; a waved black terminal line interrupted at the veins; cilia with some black points towards apex and at middle; the underside whitish tinged with rufous, a blackish discoidal point and waved terminal line.

Hab. Borneo, Sarawak, 1 ♂ type. *Exp.* 32 millim.

Sect. II. Palpi with the 2nd joint reaching to about middle of frons, the 3rd moderate.

A. Wings with the termen and cilia yellow.
  a. Hind wing with the medial area pink.
    a^1. Fore wing with fuscous fascia from base through the cell to termen below apex ..... *fuscifascia.*
    b^1. Fore wing without fuscous fascia ..... *flavimargo.*
  b. Hind wing with the medial area not pink ..... *teneralis.*
B. Wings with the termen and cilia not yellow.
  c. Fore wing with highly dentate subterminal line ..... *rubripicta.*
  b. Fore wing without highly dentate subterminal line.
    a^1. Fore wing with rufous patch beyond the cell ..... *rufipuncta.*
    b^1. Fore wing without rufous patch beyond the cell.
      a^2. Fore wing with rufous postmedial line with series of black points on it ..... *punctilinea.*
      b^2. Fore wing without rufous postmedial line with series of black points on it.
        a^3. Fore wing with the costal area blackish ..... *fuscicosta.*
        b^3. Fore wing with the costal area not blackish.....
          a^4. Abdomen with the terminal half black ..... *melasoma.*
          b^4. Abdomen with the terminal half not black. *hypozonata.*

*5397. Lycaugesia fuscifascia. (Plate CLVI. fig. 19.)

Lycaugesia fuscifascia, Dogn. Het. Nouv. Am. Sud, i. p. 14 (1910).

♂. Head and thorax yellow mixed with grey and brown; abdomen yellow with some red suffusion at middle; pectus, legs, and ventral surface of abdomen white. Fore wing bright yellow with a diffused greyish fascia edged with red scales from base through the cell to termen just below apex; the costa and inner margin with some red scales at middle. Hind wing bright yellow, the medial area very broadly suffused with brown and irrorated with black except towards edges; the underside yellowish white, the medial area suffused with fuscous except at costa.

Hab. Fr. Guiana, St. Laurent Maroni, type † ♂ in Coll. Dognin.
Exp. 14 millim.

5398. Lycaugesia flavimargo, n. sp. (Plate CLVI. fig. 20.)

♀. Head, thorax, and abdomen whitish mixed with rufous; palpi with brownish bands on 2nd and 3rd joints; antennæ ringed with blackish; pectus and legs whitish. Fore wing whitish suffused and irrorated with rufous, the inner area towards tornus and the terminal area except at apex yellow tinged with rufous; antemedial line represented by black points at costa and in cell and submedian fold; a slight whitish discoidal lunule and black points on middle of costa and submedian fold; faint traces of a curved postmedial line; some slight dark marks on postmedial part of costa and slight subterminal spots at discal fold and near tornus; a terminal series of blackish points. Hind wing with the base rufous, the medial area pink with some black irroration at inner margin, the termen yellow; a diffused darker medial band with black spot at costa; a blackish subterminal mark at discal fold and band

towards tornus; some black points at middle of termen; cilia yellow; the underside fuscous brown, the terminal half of costa and the termen whitish.

Hab. Brazil, Amazons, 1 ♀ type. *Exp* 16 millim.

5399. **Lycaugesia teneralis.** (Plate CLVI. fig. 21.)

Zebronia teneralis, Wlk. xxxiv. 1345 (1865).

♀. Head and thorax white mixed with some fulvous yellow, the tips of tegulæ yellow (abdomen wanting). Fore wing yellowish white, some purple-grey irroration on costal area and in cell to beyond middle; a subbasal fulvous yellow line from costa to submedian fold; antemedial line fulvous yellow, double, rather diffused, obliquely curved; a fulvous yellow discoidal spot; postmedial line fulvous yellow, rather diffused, oblique from costa to vein 6 and obliquely incurved below vein 4; terminal area fulvous yellow; the subterminal line whitish, excurved below vein 7 and at middle; a fine minutely waved whitish line just before termen; cilia fulvous yellow mixed with whitish. Hind wing yellowish white; rather diffused fulvous yellow subbasal and medial lines; postmedial area tinged with purplish grey, with the fine dark postmedial line on it, slightly angled outwards below costa, then oblique; terminal area fulvous yellow with a whitish line just before termen; cilia fulvous yellow mixed with whitish; the underside white.

Hab. Honduras, Limas (*Brockholes*), 1 ♀ type. *Exp.* 14 millim.

5400. **Lycaugesia rubripicta**, n. sp. (Plate CLVI. fig. 22.)

♂. Head, thorax, and abdomen white mixed with rufous, the last with dorsal brown bands towards extremity; pectus, legs, and ventral surface of abdomen white. Fore wing white irrorated with rufous and dark brown, the terminal area yellowish; subbasal blackish points at costa and median nervure; an antemedial blackish point at costa and line from cell to inner margin angled outwards in submedian fold; an oblique white discoidal bar defined on each side by blackish and with rufous spot before it in cell; a blackish point at middle of costa; traces of a curved minutely waved blackish postmedial line; a pale subterminal line defined on each side by some fuscous, strongly dentate from below costa to vein 4, then incurved; a minutely waved dark terminal line; cilia yellowish mixed with fuscous. Hind wing whitish, the medial and terminal areas suffused with rufous and irrorated with black; indistinct oblique sinuous black antemedial and postmedial lines; subterminal line white defined on each side by black suffusion, sinuous; a minute rufous black terminal line; cilia yellowish white mixed with black; the underside white with faint diffused brownish medial and subterminal bands.

Hab. Panama, La Chorrera (*Dolby-Tyler*), 1 ♂ type. *Exp.* 14 millim.

5401. Lycaugesia rufipuncta. n. sp. (Plate CLVI. fig. 23.)

♂. Head, thorax, and abdomen purplish grey tinged with brown; palpi black, rufous at tips; fore legs blackish; pectus, mid and hind legs, and ventral surface of abdomen brownish white. Fore wing purplish grey: the costal edge blackish towards base: antemedial black points on and below costa and a few fiery red scales in submedian interspace; a slight rufous streak in middle of cell and rufous patches in and beyond end of cell with the white discoidal bar between them; medial black points on and below costa and a slight oblique sinuous fiery red line from cell to inner margin; postmedial line represented by some black scales, oblique from costa to vein 6, then on outer edge of the rufous postmedial patch, then by an oblique minutely waved fiery red line with a few black scales on it and a black point in submedian fold; traces of a minutely waved red subterminal line, oblique below vein 4, with three black streaks defined by whitish and with rufous between them beyond it towards apex and slight black streaks below veins 4 and 2; a terminal series of slight rufous lunules; cilia with some black at and below apex. Hind wing purplish grey; slight minutely waved fiery red subbasal, antemedial, medial, and postmedial lines, the last with a few black scales on it; traces of a waved red subterminal line with black points on it at discal and submedian folds; a terminal series of prominent black points: cilia with a few black scales. Underside of both wings suffused with fuscous; fore wing with white discoidal bar.

Hab. Ceylon, Maskeliya (*Alston*), 2 ♂ type. *Exp.* 12 millim.

5402. Lycaugesia punctilinea. n. sp. (Plate CLVI. fig. 24.)

♂. Head, thorax, and abdomen purplish grey, the last faintly tinged with rufous; palpi and frons rufous. Fore wing purplish grey; a subbasal black point on costa and rufous point below the cell; antemedial line rufous with black point at costa, minutely waved; a black point at middle of cell and slight discoidal striga; a slight incurved rufous medial line from discal fold to inner margin; postmedial line rufous with black point at costa, very strongly bent outwards below costa, then with series of black points on it, oblique and slightly excurved at middle; some fuscous points on costa towards apex; a faint minutely dentate subterminal line with series of black points on it; a fine rufous terminal line with some black points towards apex and at submedian fold; cilia fuscous with a fine whitish line at base. Hind wing purplish grey; a slight black discoidal point; minutely waved rufous subbasal, medial, and postmedial lines, the last with series of slight black points on it; two minutely waved rufous subterminal lines, the inner line with black patch at costa; a rufous terminal line; cilia black with a fine whitish line at base. Underside whitish, fore

wing suffused with fuscous except inner area, a black spot at middle of cell, discoidal point with striga above it from costa and punctiform postmedial line; hind wing with the terminal area suffused with fuscous, a black discoidal spot, curved fuscous medial and postmedial lines, the latter with black points at discal and submedian folds.

Hab. Ceylon, Maskeliya (*Alston*), 1 ♂ type. *Exp.* 12 millim.

5403. **Lycaugesia fuscicosta**, n. sp. (Plate CLVI. fig. 25.)

Head, thorax, and abdomen reddish brown mixed with purplish grey and dark brown; palpi blackish, the extremities of 2nd and 3rd joints white; frons white with black line below; abdomen with the dorsal crests mixed with black; pectus, legs, and ventral surface of abdomen white tinged with brown. Fore wing whitish suffused with red-brown, the costal area black-brown irrorated with purplish grey to discal fold; traces of curved brown antemedial and medial lines from cell to inner margin; faint traces of a postmedial line bent outwards below costa, then minutely waved; two blackish points on costa towards apex; traces of a pale dentate subterminal line, angled outward at vein 7 and middle, then oblique; a terminal series of blackish points; the male with small ante- and postmedial blackish spots in submedian interspace. Hind wing whitish tinged with rufous and thickly irrorated with dark brown; a slight oblique rufous antemedial line; a slight rufous discoidal striga; faint curved dark medial, postmedial, and subterminal lines and a terminal series of blackish points. Underside whitish, the fore wing suffused with brown.

Hab. Panama, La Chorrera (*Dolby-Tyler*), 1 ♂, 1 ♀ type. *Exp.* 16 millim.

5404. **Lycaugesia melasoma**, n. sp. (Plate CLVI. fig. 26.)

♂. Head and thorax whitish suffused with rufous; palpi black at sides except at extremities of 2nd and 3rd joints; abdomen whitish suffused with rufous towards base, black towards extremity, the minute dorsal crests black. Fore wing whitish suffused with rufous; the costal edge blackish towards base; a slight subbasal black striga at inner margin; an antemedial black point on costa and small spots in cell and submedian fold; a black point at middle of costa and short streaks on costa towards apex; a slight black streak in discal fold beyond the cell and a small postmedial spot in submedian fold; a slight subapical black streak; a terminal series of prominent black points. Hind wing whitish suffused with rufous; a faint rufous subbasal bar on inner area; traces of waved rufous medial and postmedial lines; a terminal series of prominent black points interrupted at middle and a patch of black scales on the hair at tornus; the underside whitish faintly tinged with rufous.

♀. Hind wing with black patch on costa just before apex and without the black scales in cilia at tornus.

Hab. Panama, La Chorrera (*Dolby-Tyler*), 1 ♂, 1 ♀ type. *Exp.* 14 millim.

5405. Lycaugesia hypozonata, n. sp.

Head, thorax, and abdomen red-brown tinged with purplish grey, the last with the slight dorsal crests and lateral series of points black; palpi with the 3rd joint black except at tip. Fore wing pale red-brown tinged with purplish grey especially towards costa; subbasal black points below costa and at inner margin; an antemedial black point in cell and small spot in submedian fold; a medial blackish point on costa and faint pale discoidal bar with wedge-shaped blackish mark beyond it; a faint pale postmedial line with blackish point at costa, oblique below vein 4 and with black point in submedian fold; some black points on costa towards apex;

Fig. 76.—*Lycaugesia hypozonata*, ♂. $\frac{3}{2}$.

a faint pale subterminal line, angled outwards at vein 7 and middle, then oblique; a terminal series of prominent black points. Hind wing purplish grey suffused and irrorated with brown; faint oblique rufous subbasal and antemedial lines with some dark scales on them; an indistinct oblique minutely dentate postmedial line with some black scales on it; traces of a pale dentate subterminal line defined on each side by some black scales; a prominent series of black points just before termen. Underside of fore wing blackish with whitish postmedial band excurved at middle; hind wing white with diffused blackish medial and subterminal bands.

Hab. Panama, La Chorrera (*Dolby-Tyler*), 2 ♂, 2 ♀ type; Brazil, Amazons, Parana de Buyassu (*Austen*), 1 ♂. *Exp.* 14–18 millim.

Genus **STEGANIODES**, nov.

Type, *S. mesophæa*.

Proboscis fully developed; palpi upturned, slender, fringed with long hair in front at base, the 2nd joint reaching to well above vertex of head, the 3rd short and with triangular tuft of hair in front; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed with rough hair and scales and without crests; fore coxæ and femora of male with tufts of long hair, the tibiæ smoothly scaled; abdomen with dorsal crest at base only. Fore wing with the apex

rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with the cell less than half the length of wing; veins 3, 4 from angle; 5 nearly fully developed from just below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5406. Steganiodes mesophæa, n. sp.

♂. Head fuscous brown slightly mixed with yellow, the palpi whitish in front; thorax and abdomen yellow mixed with deep rufous; pectus, legs, and ventral surface of abdomen yellowish white; fore legs fuscous brown in front, the tufts of hair behind coxæ fulvous. Fore wing yellow irrorated with fiery red, the costal and medial areas deep purplish chocolate-brown; a subbasal brown line from the dark area to inner margin; antemedial line dark brown, obliquely curved, forming the inner edge of the chocolate medial area which is slightly irrorated with blackish; a yellow discoidal lunule; postmedial line brown, defining the chocolate area, incurved from costa to vein 4 where it is acutely angled outwards, then again incurved and angled outwards on vein 1; subterminal

Fig. 77.—*Steganiodes mesophæa*, ♂. ½.

line double, red-brown, minutely waved to vein 3 where it is angled outwards to termen, then slightly dentate and ending at tornus; an oblique chocolate bar beyond it between veins 4, 5; a chocolate-brown terminal line; cilia yellow mixed with rufous. Hind wing yellow irrorated with fiery red; an oblique elliptical discoidal spot defined by rufous; postmedial line rufous, oblique to vein 4 where it is acutely angled outwards, angled inwards at vein 2 and outwards to inner margin; subterminal line double, rufous, oblique to discal fold, then dentate, the veins beyond it with rufous streaks; a rufous terminal line; cilia yellow mixed with rufous; the underside yellowish white with slight dark mark below middle of costa and traces of a subterminal line.

Hab. S. Nigeria, Sapele (*Sampson*), 1 ♂ type. *Exp.* 24 millim.

Genus PSEUDACIDALIA.

Type.

Pseudacidalia, Hmpsn. Moths Ind. ii. p. 351 (1894) ..... *albicosta*.

Proboscis fully developed; palpi upturned, slender, the 2nd joint reaching to above vertex of head, the 3rd long; frons smooth; eyes large, round; antennæ of male laminate; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled, the spurs long; abdomen without

crests. Fore wing with the apex rectangular, the termen evenly curved and not crenulate; vein 3 from well before angle of cell; 5 from just above angle; 6 from below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from well above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the costal edge white.
  a. Fore wing with the postmedial line straight ..... *albicosta.*
  b. Fore wing with the postmedial line minutely dentate ... *undulata.*
B. Fore wing with the costal edge not white ..... *unilineata.*

5407. Pseudacidalia albicosta.

Æthia albicosta, Moore, Lep. Ceyl. iii. p. 232 (1885); Hmpsn. Moths Ind. ii. p. 351.

Head dark brown; thorax and abdomen bright rufous, the prothorax with white band; pectus, legs, and abdomen whitish tinged with rufous. Fore wing bright rufous, the costa white leaving the costal edge rufous towards base; antemedial line faint, dark, curved; two blackish discoidal points: postmedial line dark defined on outer side by pale rufous, oblique, straight, from below costa to inner margin; faint traces of a pale subterminal line excurved below vein 7 and at middle; a terminal series of black

Fig. 78.—*Pseudacidalia albicosta*, ♂. ½.

points. Hind wing bright rufous; a minute white point at lower angle of cell; postmedial line brown defined on outer side by pale rufous, straight; faint traces of a pale curved subterminal line; a terminal series of black points; the underside whitish tinged with rufous, an indistinct diffused postmedial line and terminal series of black points.

Hab. Ceylon (*Lewis*), 1 ♀, Ohiya (*Green*), 1 ♂, Dickoya (*Green*), 1 ♂, 1 ♀ type, Pundaloya (*Green*), 1 ♀. *Exp.* 30–34 millim.

5408. Pseudacidalia undulata. (Plate CLVI. fig. 27.)

Pseudacidalia undulata, Hmpsn. Moths Ind. ii. p. 351 (1894).

Head blackish; thorax and abdomen red-brown; the prothorax with a white band; legs fuscous brown; pectus and ventral surface of abdomen whitish tinged with rufous. Fore wing red-brown; a white fascia just below costa defined below by deep red and leaving the costal edge red-brown, the white broken up by red

into spots towards apex; faint traces of a sinuous antemedial line; a slight blackish point in middle of cell and another at lower angle; traces of an oblique minutely dentate postmedial line and of a dentate subterminal line; a terminal series of minute black points. Hind wing red-brown with faint dark irroration; traces of a sinuous postmedial line and of a dentate subterminal line; a terminal series of minute black points: the underside pale brownish ochreous.

Hab. Assam, Khásis, 1 ♂; Burma, E. Pegu (*Doherty*), type † ♀ in Coll. Rothschild. *Exp.* 28–32 millim.

*5409. **Pseudacidalia unilineata.** (Plate CLVI. fig. 28.)

Pseudacidalia unilineata, Beth.-Baker, Nov. Zool. xiii. p. 216 (1906).

♀. Head red-brown; thorax and abdomen ochreous white tinged with rufous, the abdomen with white spot at base of dorsum, the ventral surface whitish. Fore wing rufous with slight dark irroration, the costal edge brown; a slight oblique brown antemedial line; a dark discoidal point defined by ochreous; postmedial line brown defined on outer side by ochreous, inwardly oblique, straight; a faint brown subterminal line, slightly waved to vein 5, then dentate; a terminal series of black points; cilia deep rufous at base. Hind wing rufous with slight dark irroration; a dark discoidal point defined by ochreous; postmedial line oblique, brown defined on outer side by ochreous and with patch of ochreous suffusion beyond it in discal fold; a faint brown subterminal line, oblique from costa at postmedial line, then dentate, a terminal series of black points; cilia deep rufous at base; the underside whitish, slightly tinged with brown towards termen.

Hab. Br. New Guinea, Aroa R. (*Meek*), type † ♀ in Coll. Rothschild. *Exp.* 26 millim.

Genus **MIMORUZA**.

Type.

Mimoruza, Hmpsn. Trans. Ent. Soc. 1895, p. 301 .... *nigriceps.*

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching about to vertex of head and rather broadly fringed with scales in front and behind, the 3rd joint short; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled, the spurs long; abdomen with dorsal crest at base only. Fore wing with veins 3 and 5 from near angle of cell, 6 from below upper angle, 7 from angle; 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5410. **Mimoruza nigriceps.**

Mimoruza nigriceps, Hmpsn. Trans. Ent. Soc. 1895, p. 301; id. Moths Ind. iv. p. 519.

Head blackish; thorax and abdomen pale rufous, the latter with the basal crest black and slight blackish irroration on terminal segments. Fore wing ochreous suffused with rufous and slightly

irrorated with black; antemedial line represented by black points on costa and in submedian fold; two black discoidal points; a medial brownish shade, oblique from costa to beyond upper angle of cell, then inwardly oblique; postmedial line indistinct, yellowish, minutely dentate, with a series of blackish points on its inner side, excurved from costa to vein 4, then oblique, some yellowish points beyond it on costa; subterminal line very indistinct, yellowish with slight dark suffusion on outer side, minutely dentate, angled inwards in discal fold, excurved at middle, then oblique; a fine

Fig. 79.—*Mimoruza nigriceps*, ♂. ½.

crenulate blackish terminal line with points in the interspaces. Hind wing ochreous suffused with rufous and slightly irrorated with blackish; a black discoidal point; a slight sinuous dark postmedial line defined on outer side by yellowish; traces of a minutely waved yellowish subterminal line defined on outer side by slight dark suffusion; a fine crenulate blackish terminal line with points in the interspaces; the underside yellowish with black point at lower angle of cell and faint postmedial and subterminal shades.

Hab. Sikhim (*Dudgeon*), 1 ♀ type; Ceylon, Puttalam (*Pole*), 1 ♂. *Exp.* 22 millim.

Genus PARORUZA.

Type.

Paroruza, Hmpsn. Ann. S. Afr. Mus. ii. p. 406 (1902) ..... *subductata.*

Proboscis fully developed; palpi upturned, slender, the 2nd joint reaching about to vertex of head, the 3rd short; frons smooth; eyes large, round; antennæ of male bipectinate with short branches ending in a bristle, the apex serrate; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled; abdomen without crests. Fore wing with the apex somewhat produced and acute, the termen evenly curved and not crenulate; vein 3 from well before angle of cell; 5 from just above angle; 6 from upper angle; 9, 10 strongly anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from well above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5411. Paroruza subductata.

Acidalia subductata, Wlk. xxiii. 790 (1861).

Head and thorax purplish rufous, the head with some black mixed; abdomen rufous irrorated with black and with ochreous segmental lines except towards base; pectus, legs, and ventral surface of abdomen ochreous white tinged with brown. Fore wing purplish rufous irrorated with black; traces of a pale antemedial

line from subcostal nervure to inner margin, slightly defined on each side by blackish; postmedial line pale slightly defined on each side by blackish, oblique, from below costa to inner margin; subterminal line represented by a series of slight whitish lunules, faintly defined on inner side by blackish and with blackish points on their outer edges; a series of black striæ just before termen; cilia mixed with blackish at base. Hind wing purplish rufous irrorated with black; a small black spot at lower angle of cell; postmedial line pale slightly defined on each side by blackish, from below costa to inner margin, straight; a subterminal series of slight whitish lunules with blackish points on their outer edges; a terminal series of black points; cilia at base with blackish mixed;

Fig. 80.—*Paroruza subductata*, ♂. ½.

the underside pale purplish rufous irrorated with black, a black point at lower angle of cell, traces of double postmedial line, subterminal series of somewhat dentate blackish marks and terminal series of black points.

Ab. 1. Fore wing with rounded black discoidal spot with minute white point on it at lower angle of cell.

Hab. Natal (*Leigh, Cooke*), 1 ♂, 1 ♀; Cape Colony, 1 ♂ type. *Exp.* 26–32 millim.

Genus **HYPOSADA**, nov.

Type, *H. postvittata*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and moderately scaled, the 3rd minute; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair, the spurs long, the fore femora of male with exsertible tuft of long hair above; abdomen without crests. Fore wing with the apex somewhat produced and acute; the termen evenly curved and not crenulate; vein 3 from well before angle of cell, 5 from just above angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 shortly stalked; 5 nearly fully developed from well above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Hind wing with the postmedial line oblique.
  a. Fore wing with the costal edge pure white ..... *fasciosa*.
  b. Fore wing with the costal edge not white.
    a^1. Hind wing with the postmedial line minutely waved.
      a^2. Fore wing without oblique dark streak across tornal area ..... [illegible].
      b^2. Fore wing with oblique dark streak across tornal area ..... [illegible].

b^1. Hind wing with the postmedial line not waved.
a^2. Fore wing with oblique dark shade across tornal area.
a^3. Fore wing yellowish white, without black point at lower angle of cell ..... *ineffectaria.*
b^3. Fore wing white tinged with flesh-pink, a black point at lower angle of cell..... *astona.*
b^2. Fore wing without oblique dark shade across tornal area
a^3. Fore wing with small black spot at lower angle of cell ..... *melanosticta.*
b^3. Fore wing with white point defined by black at lower angle of cell.
a^4. Fore wing with terminal series of small black lunules ..... *hydrocampata.*
b^4. Fore wing with fine terminal black line ... *juncturalis.*
B. Hind wing with the postmedial line excurved beyond the cell, then incurved.
a. Fore wing with the costal edge white ..... *tritonia.*
b. Fore wing with the costal edge not white, the outer half of medial area suffused with fuscous ..... *mesophæa.*

5412. Hyposada fasciosa.

Arasada fasciosa, Moore, Lep. Atk. p. 290, pl. viii. f. 21 (1888); Hmpsn. Moths Ind. ii. p. 350.

♂. Head, thorax, and abdomen ochreous yellow mixed with crimson; a white bar between antennæ; tegulæ white except at base; pectus, legs, and ventral surface of abdomen ochreous white. Fore wing ochreous yellow irrorated and in parts suffused with crimson and a few black scales, the costal edge white; an indistinct waved crimson antemedial line; a small white spot defined by black at lower angle of cell on a pale brownish patch which extends to postmedial line, which is crimson, minutely dentate, excurved below costa, then oblique; the postmedial area with diffused crimson more or less confluent streaks in the interspaces; a subterminal series of small somewhat dentate black marks; a terminal series of black points on slight crimson marks. Hind wing ochreous yellow mostly suffused and irrorated with crimson and with a few black scales; a black discoidal point; postmedial line oblique, crimson, some brownish before it and yellow beyond it; a subterminal series of slight dentate black marks with waved yellowish line before them; a terminal series of black points; the underside pale ochreous with indistinct oblique brownish postmedial line.

Hab. Sikhim; Bhután (*Dudgeon*), 1 ♂. *Exp.* 30–36 millim.

5413. Hyposada postvittata.

Lycauges postvittata, Moore, Lep. Ceyl. iii. p. 456, pl. 201. f. 12 (1887).
Oruza anisodoides, Hmpsn. Moths Ind. ii. p. 350 (1894).

Head and base of tegulæ ochreous mixed with brown, the rest of tegulæ and a band across prothorax white defined behind by a

rufous line, the rest of thorax ochreous; abdomen ochreous, the 2nd segment with dorsal black point, the terminal segments suffused with brown leaving pale segmental lines; pectus and legs ochreous, the fore legs suffused with brown. Fore wing ochreous tinged in parts with rufous and slightly irrorated with black, the costal area whitish, the costal edge ochreous; traces of a pale rufous antemedial line from below costa to inner margin; a small white spot at lower angle of cell on a blackish spot; postmedial line pale

Fig. 81.—*Hyposada postvittata*, ♂. ½.

slightly defined on each side by rufous, oblique, minutely dentate, from below costa to middle of inner margin; some black points on postmedial part of costa; subterminal line very indistinct, pale, waved, with blackish marks before it below costa and at inner margin and with a series of blackish marks on its outer edge; an oblique black bar from apex; a terminal series of black points; cilia with a series of black points at tips. Hind wing ochreous slightly irrorated with black; a small black spot at lower angle of cell; postmedial line white defined on inner side by blackish and slightly on outer side, minutely waved, oblique; a subterminal series of diffused blackish spots, indistinct except towards apex and incurved below vein 3; a terminal series of small black lunules; cilia with a series of blackish points at tips; the underside ochreous white with faint discoidal striga, oblique dark postmedial line, subterminal series of spots, and terminal series of lunules.

Hab. Ceylon, Dickoya (*Green*), 2 ♀ type and type *anisodoides*; Solomon Is., Bougainville (*Meek*), 3 ♂, 2 ♀. *Exp.* 28–32 millim.

5414. Hyposada ruptifascia. (Plate CLVI. fig. 29.)

Arasada ruptifascia, Moore, Lep. Atk. p. 290 (1888); Hmpsn. Moths Ind. ii. p. 349.

Arasada lycaugesaria, Swinh. Trans. Ent. Soc. 1890, p. 232; Hmpsn. Moths Ind. ii. p. 350.

♀. Head and base of tegulæ fuscous brown; thorax and abdomen ochreous, the latter with pair of black points on 2nd segment and dorsal blackish bands on terminal segments; legs tinged with brown. Fore wing ochreous tinged with rufous and slightly irrorated with black except on costal area; a dark streak below costal area; an inwardly oblique waved dark antemedial line from subcostal nervure to inner margin; a small white spot ringed with blackish

at lower angle of cell; postmedial line dark, waved, arising below costa, angled slightly outwards above and below vein 7 and at vein 4, then oblique; subterminal line slight, whitish defined on outer side by brownish and on inner side towards inner margin, a series of blackish marks on its outer edge, slightly angled inwards at discal fold and oblique below vein 3; a terminal series of black points. Hind wing ochreous tinged with rufous and slightly irrorated with black; a black point at lower angle of cell; postmedial line white defined on each side by black, slightly angled outwards below costa, then oblique and minutely waved; subterminal line faint, pale, waved, with diffused blackish marks before and beyond it from costa to discal fold and towards inner margin; a terminal series of black points; the underside ochreous white with faint diffused oblique dark postmedial line and traces of subterminal line.

Hab. Bengal, Calcutta, type † in Mus. Berlin; Burma, Rangoon, 1 ♀ type *lycaugesaria*, Katha (*Bingham*), 1 ♀. *Exp.* 24 millim.

*5415. Hyposada ineffectaria. (Plate CLVI. fig. 30.)

Acidalia ineffectaria, Wlk. xxiii. 769 (1861).

♀. Head and thorax creamy white, the head tinged with rufous: abdomen creamy white with brown band at middle, the terminal segments irrorated with brown. Fore wing creamy white slightly irrorated with black; an indistinct minutely waved punctiform brown line from costa beyond middle to vein 4, then very oblique to inner margin near base; traces of a minutely waved subterminal line with small blackish spots on its inner side below costa and at discal fold, crossed by an oblique brown shade across tornal area; a terminal series of black points. Hind wing creamy white slightly irrorated with black; a black discoidal point; an oblique rather diffused red-brown medial line slightly defined by white on outer side; a small black postmedial spot below costa; a red-brown subterminal shade from discal fold to inner margin; a terminal series of black points; the underside white with indistinct diffused red-brown medial and subterminal lines.

Hab. Borneo, Sarawak (*Wallace*), type † ♀ in Mus. Oxon. *Exp.* 26 millim.

5416. Hyposada astona. (Plate CLVI. fig. 31.)

Oruza astona, Swinh. A. M. N. H. (7) vii. p. 473 (1901).

Head, thorax, and abdomen whitish tinged with flesh-pink; palpi with some black scales in front: antennæ brownish; tegulæ brownish with some black scales at base; fore legs streaked with blackish; abdomen with fine brown segmental lines, and blackish bands on medial segments. Fore wing white tinged with flesh-pink and irrorated with a few black scales; an indistinct double oblique pinkish line from cell to inner margin; a black point in

middle of cell and white point incompletely defined by black at lower angle; postmedial line pinkish, very indistinct, slightly excurved and with black points on it from costa to discal fold, then slightly angled outwards and very oblique to middle of inner margin; a fine waved white subterminal line with series of black points on its outer edge, incurved at discal fold and oblique below vein 4, crossed by an oblique dark shade from termen at vein 4 to the inner side of the line at inner margin; a terminal series of small black lunules. Hind wing white tinged with flesh-pink and irrorated with a few black scales; a black discoidal point; postmedial line black defined on inner side by pinkish and on outer by white, angled outwards just below costa, then oblique, a faint minutely waved rufous line beyond it with slight black points on it; an indistinct waved whitish subterminal line with slight black lunules on its outer side; a terminal series of slight black lunules; the underside with blackish discoidal bar, diffused oblique postmedial line and terminal band with whitish subterminal line on it.

Hab. Borneo, Sarawak, 1 ♂, 1 ♀ type. *Exp.* 16 millim.

5117. **Hyposada melanosticta.** n. sp. (Plate CLVI. fig. 32.)

♂. Head, thorax, and abdomen brownish white, the vertex and back of head and tegulæ at base with blackish bars; palpi black at sides except at tips; abdomen with dorsal and subdorsal black points on 2nd segment and black spot at base of anal tuft; fore and mid legs tinged with brown. Fore wing creamy white slightly tinged with rufous and irrorated with black, the costal edge black towards base; traces of an inwardly oblique waved rufous antemedial line from subcostal nervure to inner margin; a rather elongate black spot at lower angle of cell; postmedial line whitish defined on inner side by rufous, oblique from costa to vein 7, minutely dentate to vein 4, then oblique and slightly waved, some black points beyond it on costa; subterminal line represented by a series of slight pale lunules with rufous suffusion before and beyond them and a series of somewhat dentate black spots on their outer edges, excurved at middle, then oblique; an oblique blackish streak from apex; a terminal series of black points; cilia with some fuscous above and below middle. Hind wing creamy white tinged with rufous and irrorated with black; a black discoidal spot; postmedial line white defined on inner side by black, oblique, very minutely waved; a faint waved whitish subterminal line with a series of small black spots on its outer edge, somewhat excurved at middle; a terminal series of small black spots; the underside brownish white with slight black irroration on costal area, a black discoidal spot, diffused oblique brownish postmedial line, and traces of a whitish subterminal line with brown suffusion before and beyond it.

Hab. S. Nigeria, Lagos, Ebute Meta (*Boaq*), 1 ♂ type, Old Calabar (*Crompton*), 1 ♀. *Exp.* 24 millim.

5418. Hyposada hydrocampata. (Plate CLVII. fig. 1.)

Phibalapteryx hydrocampata, Guen. Ur. & Phal. ii. p. 438 (1857).
Acidalia posticaria, Wlk. xxxv. 1633.
Arasada fraterculata, Moore, Lep. Atk. p. 290 (1888).
Oruza pallescens, Hmpsn. Moths Ind. ii. p. 350 (1894).
Acidalia partita, Lucas, Pr. R. Soc. Queensland, xv. p. 141 (1900).

Head and tegulæ fuscous brown mixed with some whitish; thorax whitish tinged with purplish rufous behind; abdomen ochreous tinged with rufous, the terminal segments with dark bands and white segmental lines; pectus and ventral surface of abdomen whitish, the legs tinged with brown. Fore wing ochreous mostly suffused with purplish rufous and slightly irrorated with black, the costal area pale slightly irrorated with rufous, narrowing to a point before apex; antemedial line pale defined on each side by purplish rufous, waved, inwardly oblique, from subcostal nervure to inner margin; a white point defined by purplish at lower angle of cell; postmedial line pale defined on each side by purplish rufous, waved, arising below costa and very oblique to inner margin near antemedial line; subterminal line pale, defined on inner side by purplish rufous and with series of blackish spots on its outer edge, angled outwards at vein 4, then oblique; an oblique blackish streak from apex; a terminal series of slight black lunules. Hind wing ochreous mostly suffused with purplish rufous and irrorated with black; a slight blackish discoidal point; postmedial line yellowish slightly defined on inner side by black with purplish rufous suffusion before it, on outer side slightly defined by rufous, oblique, straight; a subterminal series of yellowish lunules defined on inner side by purplish rufous and on outer by a series of blackish spots, angled outwards at vein 6; a terminal series of blackish striæ; cilia with a fine black line through them; the underside creamy white irrorated with brown, a diffused oblique brownish postmedial line and whitish subterminal line defined on each side by brown suffusion.

Hab. Sierra Leone (*Clements*), 1 ♂; Br. Centr. Africa, Katungas (*de Jersey*), 1 ♂; Bengal, Calcutta, type † *fraterculata* in Mus. Berlin, 1 ♀ type *pallescens*; Singapore (*Ridley*), 1 ♀; Queensland, Moreton Bay (*Diggles*), 1 ♂ type *posticaria*, Brisbane (*Turner*), 1 ♀. *Exp.* 18–26 millim.

5419. Hyposada juncturalis. (Plate CLVII. fig. 2.)

Rivula juncturalis, Wlk. xxxiv. 1156 (1865).

Head and tegulæ brown mixed with some ochreous; thorax and abdomen pale ochreous, the latter with black subdorsal points on 2nd segment, the terminal segments suffused with brown and irrorated with black; legs tinged with brown; ventral surface of

abdomen irrorated with brown. Fore wing pale rufous irrorated with black; white points ringed with black at the angles of cell; postmedial line slight, brownish defined on outer side by yellowish white, excurved below costa, then very oblique to inner margin before middle, an oblique diffused pale band beyond it from apex; a faint pale subterminal line with traces of a series of black points on its outer edge, slightly excurved below vein 7 and at middle; a fine black terminal line. Hind wing ochreous suffused with rufous and irrorated with black; a black discoidal point; an oblique pale postmedial band with brown suffusion before and beyond it and traces of a dark line through it; a faint pale minutely waved subterminal line with series of black points on its outer edge; a fine black terminal line; the underside ochreous white irrorated with brown, diffused dark postmedial and subterminal bands.

Hab. Sierra Leone (*Morgan*), 1 ♀ type; W. China, Chang-yang (*Pratt*), 1 ♀; Sikhim; Bhután (*Dudgeon*), 1 ♂. *Exp.* 20 millim.

5420. Hyposada tritonia. (Plate CLVII. fig. 3.)

Oruza tritonia, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 450 (1897).

♂. Head blackish, the basal joint of antennæ whitish at sides; thorax rufous, the tegulæ tinged with fuscous in front; abdomen rufous tinged with fuscous; pectus, legs, and ventral surface of abdomen ochreous white, the fore legs tinged with fuscous. Fore wing rufous irrorated sparsely with black and faintly tinged with fuscous, the medial area rather more prominently tinged except towards costa, the costal edge white except towards base; an indistinct curved antemedial blackish line; a small black discoidal spot, postmedial line indistinct, blackish, with more distinct black mark at costa, oblique from costa to vein 6, then minutely dentate, inwardly oblique and excurved below vein 2, some black striæ beyond it on costa interrupting the white costal edge; subterminal line very faint, pale, dentate; a terminal series of black points. Hind wing rufous irrorated with black and slightly tinged with fuscous; a black point at lower angle of cell; an indistinct dark medial line defined on outer side by rufous, slightly incurved below vein 4; a faint pale waved subterminal line, excurved from costa to vein 4; a terminal series of black points; the underside pale ochreous with black discoidal striga and diffused medial and subterminal lines.

Hab. Assam, Khásis, 1 ♂ type. *Exp.* 44 millim.

*5421. Hyposada mesophæa. (Plate CLVII. fig. 4.)

Hyposada mesophæa, Püng. ined.

♂. Head fuscous; thorax and abdomen pale reddish brown, the latter greyish at extremity and whitish below. Fore wing pale

reddish brown; a very indistinct diffused dark obscurely waved antemedial line with slight dark point beyond it in cell; the outer half of medial area suffused with fuscous, bounded by the postmedial line, which is very indistinct, with a series of minute dark streaks on the veins, oblique from costa to vein 7, excurved to vein 4, then incurved; traces of a dark subterminal line; a terminal series of black spots. Hind wing pale reddish brown slightly irrorated with fuscous; a minute discoidal point; a curved medial series of slight points; faint traces of a subterminal line; a terminal series of small black spots; the underside whitish slightly irrorated with brown.

Hab. Japan, Nikko, type † ♂ in Coll. Püngeler. *Exp.* 26 millim.

Genus **BOSTRODES**, nov.

Type, *B. proleuca.*

Proboscis aborted, minute; palpi obliquely upturned, the 2nd joint reaching to about vertex of head and moderately scaled, the 3rd short; frons smooth; eyes large, round; antennæ of male ciliated, somewhat thickened with scales at base; thorax clothed almost entirely with scales and without crests; tibiæ moderately fringed with hair; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from well above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with white costal fascia ..... *proleuca.*
B. Fore wing without white costal fascia ..... *rubrifusa.*

5422. **Bostrodes proleuca**, n. sp.

Head and thorax deep chocolate-red, the base of patagia with flesh-white patches, abdomen rather paler red. Fore wing deep chocolate-red with slight dark irroration; a flesh-white fascia on

Fig. 82.—*Bostrodes proleuca*, ♂. ½.

costa narrowing to a point beyond middle; antemedial line slight, whitish, oblique from the costal fascia to vein 1; postmedial line whitish faintly defined on inner side by brown, slightly excurved; subterminal line very indistinct, whitish, slightly defined on outer side by dark scales, minutely waved below vein 4; cilia with a slight dark line near tips. Hind wing deep chocolate-red with slight dark irroration; an oblique whitish medial line faintly defined on inner side by brown; subterminal line very indistinct,

greyish defined by some dark scales, minutely waved, excurved at middle; cilia with a slight dark line near tips; the underside redder irrorated with brown, a curved dark postmedial line.

Hab. Java (*Horsfield*), 7 ♂, 5 ♀ type. *Exp.* 32–40 millim.

Larva whitish; dorsal line blackish; stigmatal line and intersegmental rings red: subdorsal and substigmatal series of paired blackish marks. Pupates between two leaves spun together.

5423. **Bostrodes rubrifusa.** (Plate CLVII. fig. 5.)

Xanthoptera rubrifusa, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 475 (1906).

♀. Head and thorax fuscous mixed with purplish red and some grey, the pectus and legs greyer: abdomen greyish irrorated with fuscous, the anal tuft ochreous. Fore wing with the basal half greyish suffused with purplish pink, the costal area more fuscous, the terminal half fuscous brown suffused with purplish red, the termen and cilia pink; traces of a minutely dentate subterminal line excurved below vein 7 and at middle. Hind wing fuscous with a greyish tinge, the cilia pink at tips; the underside greyer with traces of a dark discoidal spot and curved postmedial line.

Hab. Ceylon, North Central Province (*Alston*), 1 ♀ type. *Exp.* 26 millim.

Genus **PARASADA**, nov.

Type, *P. carnosa*.

Proboscis aborted, minute; palpi porrect, extending about twice the length of head, the 2nd joint fringed with hair above and below, the 3rd short; frons smooth; eyes large, round; antennæ of male bipectinate with moderate branches to apex; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen without crests. Fore wing with the apex somewhat produced and acute, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5424. **Parasada carnosa.**

Lycauges carnosa, Hmpsn. Ill. Het. B. M. ix. p. 150, pl. 169. f. 9 (1893): id. Moths Ind. iv. p. 518.

Head and tegulæ bright rufous; thorax whitish tinged with rufous behind; abdomen ochreous tinged with rufous and irrorated with fuscous; pectus and legs ochreous tinged with rufous. Fore wing ochreous tinged with rufous and slightly irrorated with black, the costal edge rufous; an indistinct rufous antemedial line slightly angled outwards in submedian fold; a black point in middle of cell and two discoidal points; postmedial line double filled in with greyish ochreous, very oblique from costa to vein 7 where it is acutely angled, then inwardly oblique and with rufous band before it; subterminal line slight, pale, oblique from costa to vein 7, then waved and with traces of a series of blackish points on its inner side; terminal area more strongly suffused with rufous except at

apex; a fine rufous terminal line; cilia deep rufous. Hind wing ochreous tinged with rufous and slightly irrorated with black; an oblique whitish postmedial line with rufous band before it; an

Fig. 83.—*Parasada carnosa*, ♂. ½.

indistinct pale waved subterminal line; a fine rufous terminal line; cilia deep rufous: the underside ochreous tinged with rufous and irrorated with black, a black discoidal bar and minutely waved postmedial line.

Hab. Ceylon, Nawalapitiya (*Green*), 1 ♂, Kandy (*Green*), 3 ♂, 2 ♀, Kelani Valley (*Butt*), 1 ♀ type; Bali (*Doherty*), 1 ♀. *Exp.* 18–24 millim.

Genus **EPIGRYPERA**, nov.

Type, *E. eriogona*.

Proboscis aborted, minute; palpi obliquely upturned, porrect towards extremity and extending about the length of head, the 2nd joint fringed with hair above towards tip, the 3rd short; frons smooth with tuft of hair above; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; fore coxæ and the femora and tibiæ of male fringed with long hair, the tibiæ of female moderately fringed with hair; abdomen without crests. Fore wing with the apex somewhat produced and acute, the termen excurved at middle and oblique towards tornus, not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the postmedial line excurved below costa, then incurved ..... *eriogona*.
B. Fore wing with the postmedial line excurved below costa, at middle and above inner margin ..... *argenticincta*.

5425. Epigrypera eriogona, n. sp.

♂. Head, thorax, and abdomen whitish tinged with rufous; palpi and frons bright rufous. Fore wing whitish tinged and irrorated with rufous, the terminal area deep rufous, some slight silvery irroration; subbasal black points on costa and in cell; antemedial black points on costa and subcostal nervure with a bright rufous mark before them slightly irrorated with black; a triangular bright rufous patch at end of cell with an oblique black striga above its extremity from costa; postmedial line pale, slightly defined on inner side by brown, bent outwards below costa and slightly

incurved below discal fold; subterminal line pale, angled outwards below costa and inwards at discal fold, excurved and suffused with blackish between veins 5 and 2 and ending at tornus; some blackish on middle of termen; cilia rufous with some black at middle and a

Fig. 84.—*Epigrypera eriogona*, ♂. ⅔.

fine pale line at base. Hind wing rufous, the cilia with a fine pale line at base; the underside whitish suffused with brown, traces of a dark discoidal spot and sinuous postmedial line.

Hab. Borneo, Sarawak (*Wallace*), 1 ♂ type; Pulo Laut (*Doherty*), 1 ♂. *Exp.* 22 millim.

5426. **Epigrypera argenticincta**, n. sp. (Plate CLVII. fig. 6.)

♀. Head, thorax, and abdomen greyish tinged with pale rufous; palpi and frons bright rufous. Fore wing greyish tinged with pale rufous and irrorated with silvery scales, the medial area slightly irrorated with black, the terminal area suffused with deep rufous; subbasal and antemedial black points on costa; an inverted conical rufous patch at end of cell with oblique black striga above its extremity from costa; postmedial line pale, excurved below costa and at middle and slightly incurved at discal and submedian folds; subterminal line pale with a silvery gloss, slightly excurved below vein 7, angled inwards at discal fold and outwards at middle, then incurved, some blackish on it at middle; cilia rufous with some black at middle, a whitish line at base and some whitish towards tornus. Hind wing yellowish, the basal half suffused with brown; a blackish discoidal bar and diffused blackish line from cell to inner margin; an indistinct diffused rufous postmedial line; a series of rufous striæ before termen; the underside ochreous white, the basal half suffused with brown and irrorated with fuscous, a faint brownish postmedial shade.

Hab. Selangor, Kuala Lumpur (*Durham*), 1 ♀ type. *Exp.* 22 millim.

Genus **TROGATHA**, nov.

Type, *T. pœcilota*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching to about middle of frons and fringed with scales above towards extremity, the 3rd short, porrect; frons with pointed prominence, with corneous ridge above it to between antennæ; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled; abdomen without crests. Fore wing with the apex produced and acute, the

termen excised below apex and excurved at middle, not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9, 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5427. Trogatha pœcilota.

Corgatha pœcilota, Turner, Tr. R. Soc. S. Austr. xxxii, p. 66 (1908).

♂. Head, thorax, and abdomen whitish tinged with flesh colour, the last dorsally slightly suffused with red. Fore wing flesh colour sparsely irrorated with black-brown scales; a black point in cell near base and a small spot in cell before the antemedial line, which is indistinctly double filled in with white, with slight black streak above it on costa, excurved below costa, then oblique; three black discoidal points; postmedial line indistinctly double filled in with white, some blackish on its inner edge towards costa, excurved from costa to vein 5, then incurved, some slight brown streaks beyond it on costa; a subterminal series of blackish points with faint whitish

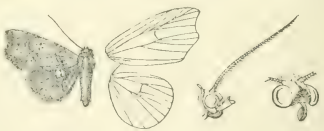

Fig. 85.—*Trogatha pœcilota*, ♂. ¾.

marks beyond them, excurved at middle, then incurved; the terminal area rather redder except at apex and with a series of black points before termen, excurved at middle. Hind wing with the costal half fiery red, the inner half flesh colour tinged with dull red and sparsely irrorated with black; a white discoidal spot with two black points on it; postmedial line indistinctly double filled in with white, incurved below vein 4; faint traces of a pale minutely waved subterminal line; a series of dark points before termen; the underside flesh colour tinged with red, a blackish discoidal bar and sinuous brown postmedial line.

Hab. Queensland, Kuranda (*Dodd*), 1 ♂. *Exp.* 20–24 millim. Type † in Coll. Lyell.

Genus CAUTATHA, nov.

Type, *C. phœnicea*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and slightly fringed with scales behind towards extremity, the 3rd short; frons with rather pointed conical prominence; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen without crests. Fore wing with the apex produced and falcate, the termen evenly curved, not crenulate; vein 3 from well before angle of cell; 5 from just above angle; 6 from upper angle; 9, 10 anastomosing with 8 to form the areole; 11 from cell.

Hind wing with vein 3 from well before angle of cell; 5 nearly fully developed from just below middle of discocellulars; 6, 7 shortly stalked; 8 anastomosing with the cell near base only.

5428. Cautatha phœnicea, n. sp.

♂. Head, thorax, and abdomen ochreous white tinged with fiery red, the palpi, frons, and fore legs in front deep fiery red. Fore wing ochreous white irrorated with fiery or purplish red, the terminal area deep purplish or blood-red except just below apex, the costal edge fiery red; antemedial line fiery red, indistinctly double and slightly sinuous; two black discoidal points; postmedial line fiery red, indistinctly double with a point at costa, excurved from below costa to vein 5, then slightly incurved, some slight pale

Fig. 86.—*Cautatha phœnicea*, ♂. ¾.

points beyond it on costa; subterminal line represented by a series of faint pale points with two slight dark points below costa; a series of faint dark points just before termen slightly defined on outer side by whitish scales; cilia deep fiery red. Hind wing yellowish irrorated with fiery red; the termen redder with a series of black points just before it; cilia deep fiery red with a fine pale line at base; the underside suffused with bright fiery red.

Hab. Gold Coast, Kumasi (*Whiteside*), 3 ♂ type. *Exp.* 18 millim.

Genus ECTROGATHA, nov.

Type, *E. himerata*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching about to middle of frons and fringed with hair in front and behind toward extremity, the 3rd short, porrect; frons smooth; eyes large; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled; abdomen without crests. Fore wing with the apex produced and acute, the termen excurved at middle, excised towards apex and oblique towards tornus; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with the termen slightly angled at veins 7 and 3; veins 3, 4 from angle of cell; 5 nearly fully developed from well above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5429. Ectrogatha himerata.

Erosia himerata, Wlk. xxvi. 1757 (1862).

Head pale rufous; thorax and abdomen whitish tinged with rufous and irrorated with brown. Fore wing whitish suffused

with rufous and irrorated with brown; the costal edge fuscous towards base; antemedial line represented by a very oblique black striga from costa near middle and a curved line nearer the base from subcostal nervure to inner margin; reniform strongly defined by black-brown; postmedial line black-brown, very strongly excurved below costa and oblique below vein 4, some alternating black-brown and whitish streaks beyond it on costa; the termen suffused with brown from below apex to vein 4, then with indistinct wedge-shaped brown marks; a terminal series of black striæ defined on inner side by white and a small spot just

Fig. 87.—*Ectrogatha himerata*, ♂. ¾.

below apex. Hind wing whitish suffused with rufous and irrorated with brown; discoidal spot defined by dark brown, elliptical; postmedial line dark brown, slightly excurved; the termen suffused with red-brown; a terminal series of black striæ defined on inner side by white; the underside whitish suffused with bright rufous, the discoidal spot distinct, the postmedial line crenulate and strongly curved.

Hab. Brazil, Amazons, Obydos (*Austen*), 1 ♂, Ega (*Bates*), 1 ♂, 1 ♀ type. *Exp.* 22 millim.

Genus **CORGATHA.**

	Type.
Corgatha, Wlk. xvi. 215 (1858)	*zonalis.*
Palara, Wlk. xxiv. 1090 (1862)	*implexata.*
Sophta, Wlk. xxvi. 1758 (1862)	*concavata.*
Ausinza, Wlk. Journ. Linn. Soc., Zool. vii. p. 192 (1864).	*æqua.*
Zitna, Wlk. xxxiv. 1276 (1865)	*albicinctalis.*
Nacerasa, Wlk. xxxv. 1570 (1866)	*concavata.*
Pseudephyra, Butl. Trans. Ent. Soc. 1886, p. 422	*straminea.*
Celeopsyche, Butl. Ill. Het. B. M. iii. p. 68 (1879)	*nitens.*
Callipyris, Meyr. Tr. R. Soc. S. Austr. xiv. p. 195 (1891).	*drosera.*

Proboscis fully developed; palpi obliquely porrect, extending about the length of head, the 2nd joint fringed with hair above towards extremity, the 3rd short; frons smooth, with tuft of hair above; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ typically moderately fringed with hair, the spurs long; abdomen without crests. Fore wing with the apex slightly produced and acute, the termen evenly curved and not crenulate; vein 3 from well before angle of cell; 5 from just above angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Fore wing with the termen excised below apex and excurved at middle.

A. Femora and tibiæ of male fringed with long hair.

*5430. Corgatha variegata.

Oruza variegata, Beth.-Baker, Nov. Zool. xiii. p. 215 (1906).

♂. Head, thorax, and abdomen bright rufous mixed with yellow, the vertex of head yellow with a rufous bar between antennæ; tegulæ yellow at base; pectus and legs white, the tibiæ with rufous mixed, the fore tibiæ deep rufous at extremity. Fore wing yellow suffused with bright rufous leaving the base, the costal area and cell to middle, and the apical area yellow; antemedial line rufous, slightly angled outwards below costa and excurved in and below cell: a deep rufous discoidal bar and diffused oblique shade from lower angle of cell to inner margin; postmedial line rufous, dentate, slightly excurved, indistinct except on the yellow costal area; subterminal line rufous, rather diffused, excurved at middle, approximated to the postmedial line, indistinct except on

Fig. 88.—*Corgatha variegata*, ♂. ½.

the yellow costal area; a rufous terminal line; cilia yellow at base, rufous at tips. Hing wing yellow suffused with rufous; a deep rufous medial shade; postmedial line rufous, rather diffused, angled inwards in discal fold, then excurved; subterminal line approximated to the postmedial line, diffused, rufous, somewhat dentate, excurved at median nervules; a strong rufous terminal line; cilia yellow at base, rufous at tips; the underside ochreous whitish with dark discoidal bar, indistinct diffused postmedial and subterminal rufous lines and greyish fuscous terminal narrow band.

Hab. Br. New Guinea, Dinawa (*Pratt*), type † ♂ in Coll. Bethune-Baker, Aroa R. *Exp.* 26 millim.

B. (*Sophta*). Femora and tibiæ of male normal.
  a. Hind wing with the cilia yellow at tips.
    a^1. Fore wing with yellow patch on costal area beyond postmedial line ..... *virescens.*
    b^1. Fore wing without yellow patch on costal area beyond postmedial line.
      a^2. Fore wing without white apical spot and series of striæ just before termen ..... *anthina.*
      b^2. Fore wing with white apical spot and series of striæ just before termen ..... *emispodes.*

b. Hind wing with the cilia not yellow at tips.
*a*¹. Fore wing tinged with purplish red.
*a*². Wings irrorated with silvery scales ..... *omopis*.
*b*². Wings not irrorated with silvery scales.
*a*³. Wings without pale streaks on veins of terminal half.
*a*⁴. Fore wing with the oblique medial shade arising from postmedial line just below costa. *producta*.
*b*⁴. Fore wing with the oblique medial shade arising from lower angle of cell ..... *nitens*.
*b*³. Wings with pale streaks on the veins of terminal half ..... *excisa*.
*b*¹. Fore wing not tinged with purplish red.
*a*². Fore wing with the ground-colour ochreous.
*a*³. Fore wing with the postmedial line angled outwards to below apex ..... *macariodes*.
*b*³. Fore wing with the postmedial line excurved below costa.
*a*⁴. Hind wing with double oblique postmedial and subterminal lines.
*a*⁵. Fore wing with the cilia of apical hook black ..... *atrifulcis*.
*b*⁵. Fore wing with the cilia of apical hook not black ..... *diplochorda*.
*b*⁴. Hind wing without double postmedial and subterminal lines ..... *ozolica*.
*b*². Fore wing with the ground-colour grey.
*a*³. Fore wing with the postmedial line excurved below costa.
*a*⁴. Head and tegulæ rufous.
*a*⁵ Hind wing with the postmedial line sinuous. *drepanodes*.
*b*⁵. Hind wing with the postmedial line straight, oblique ..... *ruficeps*.
*b*⁴. Head and tegulæ grey ..... *concavata*.
*b*³. Fore wing with the postmedial line angled outwards just below costa, then oblique ..... *loxomita*.
*c*². Fore wing olive-green ..... *olivata*.

5431. Corgatha drosera. (Plate CLVII. fig. 7.)

Callipyris drosera, Meyr. Tr. R. Soc. S. Austr. xiv. p. 195 (1891).

Head and thorax bright fulvous with a metallic silvery gloss; abdomen brownish, fulvous at base; pectus, legs, and ventral surface of abdomen yellow. Fore wing with the basal area fulvous irrorated with silver, the medial area brownish, fulvous towards costa and with some silvery scales on costal area, the terminal area yellow largely suffused with fulvous red; antemedial line slight, whitish, sinuous; postmedial line whitish, strong and pure white towards costa, oblique from costa to vein 4, then incurved and bent outwards above inner margin, a bright yellow patch beyond it on costal area with some white points on the costa; subterminal line represented by silvery scales, almost obsolete towards costa, excurved below costa and at middle; a small blackish spot on termen above tornus; cilia yellow mixed with brownish. Hind wing yellow, the inner and terminal areas

suffused with fulvous red; a diffused brown medial bar on inner area; postmedial and subterminal diffused red bars on inner area with some silvery scales on them; cilia yellow tinged with fiery red; the underside yellow, the terminal area dark brown from apex to vein 2.

Hab. Queensland, Brisbane (*Turner*), 2 ♂, 1 ♀. *Exp.* 18–20 millim.

*5432. Corgatha anthina. (Plate CLVII. fig. 8.)

Corgatha anthina, Turner, P. Linn. Soc. N. S. W. xxxiv. p. 351 (1909).

♂. Head and thorax grey suffused with red-brown; pectus and legs bluish white tinged with brown, the mid and hind tarsi rufous ringed with white; abdomen white suffused with pink, the base of dorsum with red-brown, the ventral surface white. Fore wing grey suffused with rufous; a subbasal white point on costa; antemedial line slight, rufous, with white points at costa and inner margin; a white spot on middle of costa; postmedial line slight, red-brown slightly defined by white on outer side, minutely waved, excurved to vein 4, then incurved, the costa beyond it red with a series of white points on it; a red terminal line; cilia orange with some red at apex and middle. Hind wing pink, the medial area whitish; a faint red antemedial line; a slight sinuous medial line faintly defined by whitish on outer side and with a diffused red band beyond it from vein 6 to inner margin; a red and blackish terminal line; cilia orange. Underside of fore wing with the disk suffused with pink; hind wing white, the costal and terminal areas irrorated with pink, a pink discoidal striga and postmedial line and terminal series of slight dark lunules.

Hab. Queensland, Bunya Mts., Toowumba, type † ♂ in Coll. Turner. *Exp.* 20 millim.

5433. Corgatha enispodes, n. sp. (Plate CLVII fig. 9.)

♀. Head, thorax, and abdomen pale rufous, the last slightly irrorated with black; a white bar between bases of antennæ; some silvery scales behind the tegulæ; pectus and ventral surface of abdomen white, the legs tinged with rufous. Fore wing whitish suffused with rufous and sparsely irrorated with black, the costa with alternating pale and black streaks; a minute black discoidal point; traces of a brownish subterminal line from below costa to discal fold and a black point in submedian fold; a small white spot at apex with a black point on it and a series of white striæ just before termen; a fine dark terminal line; cilia deep rufous at base with fine dark line at middle and pale tips. Hind wing pale rufous sparsely irrorated with black and silvery scales; a black discoidal point; a sinuous rufous postmedial line with some black scales on it; a subterminal series of slight black points; a series of minute whitish lunules just before termen defined on

inner side by red-brown; a fine dark terminal line; cilia rufous at base, with fine dark line at middle and yellow tips; the underside yellowish white irrorated with red-brown, the termen suffused with red-brown, a dark discoidal spot and diffused curved brown postmedial line.

Hab. Gold Coast, Accra (*Sir G. Carter*), 2 ♀ type. *Exp.* 16 millim.

5434. Corgatha omopis. (Plate CLVII. fig. 10.)

Sophta omopis, Meyr. Trans. Ent. Soc. 1902, p. 31 (Apr.).
Corgatha dipyra, Turner, Pr. Linn. Soc. N. S. W. xxvii. p. 113 (Aug. 1902).

♀. Head and thorax rufous with a metallic silvery gloss, the palpi and frons redder; abdomen deep red-brown, rufous at base; pectus and ventral surface of abdomen yellowish white, the legs tinged with brown. Fore wing rufous slightly irrorated with blackish and silvery scales, the costal area more strongly irrorated with silver; small double subbasal and antemedial black spots on costa; a small black discoidal lunule; postmedial line black, punctiform, excurved from costa to vein 4, then incurved; some black marks on costa towards apex; subterminal line represented by slight diffused black irroration, excurved at middle; a terminal series of blackish spots except at middle; cilia deep fiery red, the tips white with some red and with some black at apex and middle. Hind wing rufous slightly irrorated with blackish and silvery scales; the terminal half browner; a slight blackish discoidal spot, diffused black postmedial line angled outwards at middle and indistinct diffused blackish subterminal line; cilia deep fiery red, the tips white with some red, the underside white slightly irrorated with fuscous, the terminal area fuscous, a blackish discoidal spot and curved fuscous postmedial line.

Hab. Queensland, Brisbane (*Turner*), 2 ♀; N. S. Wales, type † ♀ in Coll. Meyrick. *Exp.* 22 millim.

5435. Corgatha producta. (Plate CLVII. fig. 11.)

Corgatha producta, Hmpsn. Ann. S. Afr. Mus. ii. p. 405 (1902).

♂. Head, thorax, and abdomen pale rufous; antennæ with a white bar between their bases; pectus and ventral surface of abdomen whitish. Fore wing pale purplish rufous mixed with some whitish; an inwardly oblique antemedial series of black points on costa, veins and inner margin; an oblique dark shade from discocellulars to inner margin; postmedial line black, oblique from costa to vein 7, then reduced to points on the veins, incurved below vein 4 and bent outwards at vein 1; a faint whitish subterminal line slightly defined on inner side by fuscous, oblique towards costa, excurved at middle and incurved below vein 3; the apex whiter; a terminal series of small black lunules; cilia

fuscous brown with a fine white line at base. Hind wing pale purplish rufous slightly mixed with whitish; a diffused oblique dark medial line; a faint dark postmedial line with series of white points on its outer edge, excurved at middle and inner margin; subterminal line represented by a few black scales; cilia red-brown with fine white lines at base and tips; the underside white tinged with purplish and sparsely irrorated with black; a black discoidal striga and diffused sinuous postmedial line.

Hab. Natal, Durban (*Leigh*), 1 ♂ type. *Exp.* 18 millim.

5436. Corgatha nitens.

Celeopsyche nitens, Butl. Ill. Het. B. M. iii. p. 68, pl. 57. f. 10 (1879).
Corgatha fasciola, Leech, Trans. Ent. Soc. 1900, p. 512.

Head, thorax, and abdomen pale rufous; vertex of head and shaft of antennæ towards base pure white more or less tinged with purplish pink; pectus, legs, and ventral surface of abdomen ochreous. Fore wing pale rufous more or less tinged with purplish pink; an antemedial black point on costa with traces of an inwardly oblique line from it to inner margin; a black discoidal point; an oblique blackish shade from discal fold beyond the cell to middle of inner margin; postmedial line slight, black, excurved from costa to vein 4, then oblique, some whitish points with slight black streaks before them beyond it on costa; subterminal line slight, whitish, defined on inner side by black suffusion, strong between veins 7 and 3, angled outwards at veins 4, 3 and incurved towards costa and inner margin; terminal area irrorated with black; a terminal series of small black lunules; cilia with a fine pale line at base. Hind wing yellowish rufous more or less tinged with purplish pink; a diffused oblique fuscous medial line; postmedial line slight, dark, angled outwards at vein 3; a slight brown terminal line; the underside ochreous white irrorated with brown, a slight discoidal point and traces of a postmedial line.

Hab. Japan, Sakata (*Leech*), 1 ♂ type *fasciola*, Tokio (*Fenton*), 1 ♂, Yokohama (*Jonas*, *Pryer*), 1 ♂, 1 ♀ type; C. China, Shanghai (*Pryer*), 1 ♂, Kiukiang (*Pryer*), 1 ♂. *Exp.* 22 millim.

*5437. Corgatha excisa. (Plate CLVII. fig. 12.)

Corgatha excisa, Hmpsn. Moths Ind. ii. p. 348 (1894).

♂. Head and tegulæ rufous; thorax and abdomen grey irrorated with black; fore legs rufous in front. Fore wing grey tinged with rufous and irrorated with black, the veins of terminal half with pale streaks; antemedial line pale slightly defined on each side by brown, angled outwards below costa, then oblique; a round blackish discoidal spot; postmedial line pale slightly defined on each side by brown, excurved below costa, then oblique; sub-

terminal line pale defined on inner side by brown, slightly waved below costa and at middle and bent outwards to tornus; a series of blackish and grey points just before termen; a fine brown terminal line. Hind wing greyish suffused with rufous and irrorated with blackish, the veins of terminal half with pale streaks; a black discoidal bar; postmedial line pale defined on inner side by brown, oblique; subterminal line pale defined on inner side by brown, slightly excurved at middle; a series of blackish and grey points just before termen; a fine brown terminal line and pale line at base of cilia; the underside grey tinged with red and irrorated with black, a black discoidal bar, brown postmedial line slightly excurved below costa, and subterminal series of black points.

Hab. Manipur, Máo, 6000′ (*Doherty*), type † ♂ in Coll. Rothschild. *Exp.* 22 millim.

5438. **Corgatha macariodes**, n. sp. (Plate CLVII. fig. 13.)

♂. Head, thorax, and abdomen ochreous white; antennæ browner; legs tinged with brown. Fore wing ochreous white, the basal and terminal areas slightly irrorated with brown, the medial area with a few black scales on inner half; a slight subbasal red-brown shade on inner area; antemedial line double, red-brown, angled outwards below costa, then oblique; reniform faintly defined by brown; postmedial line double, red-brown, the inner line darker, very oblique from costa to vein 6, then inwardly oblique and slightly sinuous; subterminal line whitish faintly defined on each side by red-brown, excurved at middle and bent outwards to tornus, a brown patch beyond it from below apex to vein 4 with slight black marks on the outer edge of the line; a series of black points just before termen; cilia tipped with brown from apex to vein 4 and with some black at apex. Hind wing ochreous white irrorated with a few large black scales, especially on basal area, and slightly with rufous; a black discoidal point; postmedial line double, red-brown, the inner line darker, straight, oblique; traces of a whitish subterminal line faintly defined on each side by rufous, incurved at discal and submedian folds, excurved at middle and bent outwards to tornus; a series of black points just before termen; cilia tinged with rufous at tips from apex to vein 4; the underside slightly irrorated with brown, a sinuous brown postmedial line and series of black points before termen.

Hab. Gold Coast, Kumasi (*Whiteside*), 1 ♂ type. *Exp.* 26 millim.

5439. **Corgatha atrifalcis.** (Plate CLVII. fig. 14.)

Corgatha atrifalcis, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 649 (1907).

Head and tegulæ rufous; thorax and abdomen ochreous white tinged with rufous, the latter sometimes dorsally suffused with fuscous except at base which is irrorated with a few black scales.

Fore wing ochreous white tinged with rufous and irrorated with a few black scales; a black point in middle of cell and three discoidal points; a double oblique brown line from lower angle of cell to inner margin; postmedial line double, the inner line darker, arising just above vein 6, very slightly excurved to vein 4, then oblique; subterminal line formed by obscure double dark striæ, almost obsolete towards costa and incurved below vein 4, the area beyond it tinged with brown; a series of dark points before termen, the subapical point white and black; cilia reddish brown, black at apex. Hind wing ochreous white tinged with rufous and irrorated with a few black scales; postmedial line double, obsolete on costal area, the inner line strong, black; subterminal line brown, double, minutely waved; a series of black points before termen which is tinged with reddish brown; a fine brown terminal line: the underside whitish irrorated with a few black scales, the terminal half tinged with rufous, the postmedial and subterminal lines indistinct.

Ab. 1. Fore and hind wings with the inner postmedial line less distinct and not black.

Hab. Ceylon, Pundaloya (*Green*), 2 ♂, Wattegama (*Mackwood*), 1 ♀ type. *Exp.* 26–30 millim.

5440. Corgatha diplochorda. (Plate CLVII. fig. 15.)

Corgatha diplochorda, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 649 (1907).

♀. Head and tegulæ rufous; thorax ochreous white; pectus, legs, and abdomen ochreous tinged with brown, the last dorsally irrorated with a few black scales. Fore wing ochreous tinged with rufous and irrorated with a few black scales; a black point in middle of cell and two obliquely placed on discocellulars; a double oblique brown line from lower angle of cell to inner margin; postmedial line double, very faint from costa to vein 4, oblique from costa to vein 6, then inwardly oblique with a very slight outward curve to vein 4; the terminal area more strongly suffused with rufous; a faint double subterminal line, oblique below vein 4; a series of black points before termen; cilia deep rufous with a fine pale line at base. Hind wing ochreous tinged with rufous, more strongly on terminal area, and slightly irrorated with black; a black discoidal point; a double oblique postmedial line, the inner line blackish; an indistinct, double, very minutely waved brown subterminal line; a series of black striæ before termen; a fine rufous terminal line; cilia rufous with a pale line at base; the underside ochreous white tinged with rufous and irrorated with black.

Hab. Assam, Khásis, 2 ♀ type. *Exp.* 24 millim.

5441. Corgatha ozolica, n. sp. (Plate CLVII. fig. 16.)

♂. Head and tegulæ pale rufous; thorax and abdomen ochreous

white; legs tinged with rufous. Fore wing ochreous white tinged with rufous and irrorated with a few dark scales; a faint double antemedial line filled in with whitish, inwardly oblique and slightly sinuous; a slight whitish discoidal bar faintly defined by brown, constricted at middle and with three black points on it; postmedial line faint, double filled in with whitish, oblique from costa to vein 7 and incurved below vein 4; a subterminal series of faint fuscous points excurved at middle; a series of black points just before termen; cilia rufous at base, blackish at tips. Hind wing white tinged with rufous from lower angle of cell to termen between discal and submedian folds; a series of black points just before termen; cilia tinged with rufous and mixed with black at tips; the underside white faintly tinged with rufous.

Hab. Gold Coast, Accra (*Sir G. Carter*), 1 ♂ type. *Exp.* 20 millim.

5442. Corgatha drepanodes, n. sp. (Plate CLVII. fig. 17.)

♂. Head and tegulæ greyish rufous; thorax and abdomen grey, the latter slightly irrorated with black. Fore wing grey sparsely irrorated with large black scales; a black point in middle of cell with the double dark waved antemedial line just beyond it, bent inwards to costa; reniform with blackish annulus and black points in upper and lower parts; postmedial line indistinctly double filled in with white, oblique from costa to vein 6, oblique and slightly sinuous below vein 4, some white points with black streaks between them beyond it on costa; a crenulate whitish subterminal line with small blackish spots on its inner side; the terminal area browner; a series of black points just before termen; a fine brown terminal line; cilia dark brown. Hind wing grey tinged with brown and sparsely irrorated with black; a black point at lower angle of cell; postmedial line brown defined on outer side by white, bisinuate; a minutely crenulate whitish subterminal line with slight dark spots before it; a series of black points before termen slightly defined by whitish; a fine brown terminal line; cilia dark brown with a fine pale line at base; the underside whitish tinged with rufous and slightly irrorated with brown except on inner area; a black discoidal bar, a slightly sinuous brown postmedial line, subterminal series of small dark spots, and series of black points before termen.

Hab. Br. E. Africa, Kikuyu (*Crawshay*), 1 ♂ type. *Exp.* 28 millim.

5443. Corgatha ruficeps. (Plate CLVII. fig. 18.)

Thermesia ruficeps, Wlk. Journ. Linn. Soc., Zool. vii. p. 186 (1864); Swinh. Cat. Het. Mus. Oxon. ii. p. 70, pl. i. f. 17.
Thermesia sparsa, Wlk. Journ. Linn. Soc., Zool. vii. p. 187 (1864).
Corgatha castaneiceps, Hmpsn. Moths Ind. iv. p. 519 (1896).

♂. Head and tegulæ bright rufous; thorax and abdomen pale

brownish ochreous; fore legs in front and mid tibiæ tinged with red, the tarsi dark brown. Fore wing ochreous tinged with rufous and sparsely irrorated with black: a slight dark antemedial line excurved below costa, then slightly incurved; a black discoidal annulus; postmedial line slight, dark, excurved from costa to vein 4, then oblique, some pale points beyond it on costa with slight dark streaks between them; a subterminal series of faint pale lunules slightly defined by fuscous; a series of slight black points just before termen; cilia red-brown. Hind wing with black point at lower angle of cell; postmedial line slight, dark, almost straight; a series of minute black points just before termen; cilia red-brown; the underside ochreous white suffused with red.

Hab. Ceylon, Hambantota (*Pole*), 1 ♂ type *castaneiceps*; Borneo, Sarawak (*Wallace*), 1 ♂. *Exp.* 20 millim. Type † and type ♀ *sparsa* in Mus. Oxon.

5444. Corgatha concavata.

Sophta concavata, Wlk. xxvi. 1759 (1862).
Nacerasa nana, Wlk. xxxv. 1571 (1866).

Head, thorax, and abdomen grey tinged with brown and irrorated with a few black scales. Fore wing grey tinged with red-brown and irrorated with blackish; a subbasal black point in cell; antemedial line indistinctly double filled in with grey, minutely waved; reniform obscurely defined by brown and with dark striga

Fig. 89.—*Corgatha concavata*, ♂. $\frac{3}{2}$.

in centre, rounded, some brown suffusion beyond it on costal area to near apex; postmedial line double, brown filled in with grey, oblique from costa to vein 6, inwardly oblique below vein 4; subterminal line grey with series of slight brown spots before and beyond it, minutely waved; a series of blackish points before termen; a fine brown terminal line; cilia red-brown with fine grey line at base and some black at tips at apex and middle. Hind wing grey tinged with red-brown and irrorated with blackish; a blackish discoidal bar; postmedial line double, brown filled in with whitish, nearly straight, from below costa to inner margin; traces of a slightly waved subterminal line and of a series of blackish points before termen; cilia red-brown, white at tips: the underside grey-white, slightly tinged with rufous and irrorated

with large black-brown scales except on inner area, a slight discoidal striga.

Hab. Queensland, Moreton Bay (*Diggles*), 1 ♂, 1 ♀ type and type*nana*, Brisbane (*Turner*), 2 ♂, 1 ♀. *Exp.* 22–24 millim.

*5445. Corgatha loxomita. (Plate CLVII. fig. 19.)

Corgatha loxomita, Turner, Tr. Soc. S. Austr. xxxii. p. 66 (1908).

♀. Head, thorax, and abdomen pale grey-brown tinged with rufous; tarsi fuscous with slight pale rings. Fore wing pale grey-brown tinged with rufous and irrorated with fuscous; a slightly waved dark antemedial line; black points on yellowish spots at angles of cell; a very oblique brown line from costa towards apex to inner margin beyond middle; traces of a minutely dentate greyish subterminal line with series of blackish spots on its inner side in the interspaces and a small white spot on it below apex; a series of black points just before termen. Hind wing grey-brown tinged with rufous and slightly irrorated with fuscous; an oblique brown postmedial line; a series of black points just before termen; the underside grey irrorated with black, a small black discoidal spot, indistinct diffused postmedial and subterminal lines, and series of black points before termen.

Hab. Queensland, Kuranda (*Dodd*), type † ♀ in Coll. Turner. *Exp.* 28 millim.

5446. Corgatha olivata. (Plate CLVII. fig. 20.)

Corgatha olivata, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 208 (1902).

♂. Head and tegulæ red-brown; thorax and abdomen grey suffused with purplish brown; the tarsi slightly ringed with white. Fore wing dull olive greenish suffused with purplish fuscous, except on medial area from below costa to inner margin and on terminal area from apex to vein 4; antemedial line dark, very slightly angled outwards below costa, then oblique; reniform greyish defined by brown, constricted at middle and with black points in upper and lower parts; postmedial line dark slightly defined on inner side by whitish, oblique from costa to vein 6 and inwardly oblique below vein 4, some white points beyond it on costa; a subterminal series of small white spots defined by somewhat diffused fuscous, slightly excurved below vein 7 and at middle; a series of black points just before termen; cilia blackish with a pale line at base. Hind wing dull olive-green suffused with purplish fuscous except the medial area from below costa to inner margin, the terminal area with a slight reddish tinge; a straight brown antemedial line and brown postmedial line slightly defined on outer side by whitish; a sinuous subterminal series of slight whitish marks faintly defined by brown; a series of black points before termen; cilia with a fine whitish line at base; the underside grey tinged with reddish, a black discoidal

striga, straight brown postmedial line defined on outer side by whitish, and series of black points before termen.

Hab. Sikhim, 1800′ (*Dudgeon*), 1 ♂ type. *Exp.* 26 millim.

Sect. II. Fore wing with the termen slightly angled at vein 4; tibiæ of male fringed on both sides with very long hair.

A. Fore wing with slight red antemedial line incurved at vein 1 and oblique medial line ..... *aroa*.
B. Fore wing without antemedial line and with strong very oblique fuscous medial line ..... *dinava*.

*5447. Corgatha aroa.

Oruza aroa, Beth.-Baker, Nov. Zool. xiii. p. 215 (1906).

♂. Head deep rufous; thorax and abdomen dull flesh-red, the ventral surface whitish; pectus in front and fore legs bright rufous. Fore wing dull flesh-red with slight dark irroration, the costal edge glossy purplish red; antemedial line slight, purplish red, incurved

Fig. 90.—*Corgatha aroa*, ♂. ½.

at vein 1, a dark point before it in cell; an oblique purplish red medial line; postmedial line slight, purplish red, minutely dentate, excurved at middle; a terminal series of dark points. Hind wing dull flesh-red; an oblique purplish red antemedial line, traces of a curved postmedial line and a slight terminal line; the underside whitish tinged with purplish red.

Hab. Br. N. Guinea, Aroa R. (*Meek*), type † ♂ in Coll. Bethune-Baker. *Exp.* 28 millim.

*5448. Corgatha dinava. (Plate CLVII. fig. 21.)

Oruza dinawa, Beth.-Baker, Nov. Zool. xiii. p. 215 (1906).

♂. Head, thorax, and abdomen flesh-red, the ventral surface whitish; palpi, frons, pectus and fore legs bright rufous. Fore wing flesh-red, irrorated with purple-red, the costal edge dark except towards base with some silvery scales below it; an antemedial black point in cell; a very oblique diffused purplish fuscous line from costa at two-thirds to inner margin before middle; a slight purplish red postmedial line, erect and minutely waved from costa to vein 3, then incurved, dentate and angled outwards at vein 1; a fine dark terminal line. Hind wing flesh-red irrorated with purplish red, the inner margin white; an oblique diffused ante-

medial purplish-red line, a slight minutely dentate postmedial line excurved at median nervules and a fine dark terminal line; the underside whitish tinged with red, a slight discoidal lunule.

Hab. Br. N. Guinea, Dinawa (*Pratt*), type † ♂ in Coll. Bethune-Baker. *Exp.* 32 millim.

Sect. III. Fore wing with the termen evenly curved.

A. (*Palara*). Fore legs of male with the coxæ, femora, and tibiæ thickly tufted with hair, the mid and hind tibiæ fringed with long hair.
- *a*. Both wings with the terminal area blackish ..... *atrimargo*.
- *b*. Wings with the terminal area not blackish.
  - a^1. Both wings with series of small white spots just before termen ..... *albicinctalis*.
  - b^1. Wings without series of white spots before termen.
    - a^2. Fore wing with the costa yellow suffused with crimson ..... *costipicta*.
    - b^2. Fore wing with the costa not yellow.
      - a^3. Both wings with the cilia yellow ..... *argyrota*.
      - b^3. Wings with the cilia not yellow.
        - a^4. Fore wing with the costa pure white.
          - a^5. Fore wing with the white costa interrupted by strong black bars ..... *niveicosta*.
          - b^5. Fore wing with slight red striæ on the white costa ..... *implexata*.
        - b^4. Fore wing with the costa not white.
          - a^5. Fore wing with white points on costa ..... *leucosticta*.
          - b^5. Fore wing with yellowish points on costa.
            - a^6. Fore wing with small yellow spot on inner margin beyond postmedial line .. *flavipuncta*.
            - b^6. Fore wing without yellow spot on inner margin beyond postmedial line ..... *trichogyia*.

5449. Corgatha atrimargo, n. sp. (Plate CLVII. fig. 22.)

♀. Head and tegulæ red-brown with some silvery scales; thorax and abdomen yellowish suffused with fiery red; pectus, legs, and ventral surface of abdomen ochreous white. Fore wing yellowish suffused with fiery red, the costal and terminal areas red-brown mixed with black and irrorated with silver, the latter broad towards apex and narrowing towards tornus, defined on inner side by a curved black line; a slight black discoidal point; an indistinct blackish subterminal line, slightly angled inwards below vein 7, excurved at middle to near termen, then obsolete; a fine waved black terminal line; cilia fuscous brown with a fine whitish line at base. Hind wing yellowish suffused with fiery red and irrorated with a few black scales; faint traces of a postmedial line excurved at median nervules; a terminal red-brown band irrorated with black and silver, its inner edge incurved at discal fold; cilia fuscous brown with a fine whitish line at base; the underside whitish suffused with ochreous, the terminal area fuscous brown.

Hab. Borneo, Sandakan (*Pryer*), 1 ♀ type. *Exp.* 14 millim.

5450. Corgatha albicinctalis. (Plate CLVII. fig. 23.)

Zitna albicinctalis, Wlk. xxxiv. 1277 (1865); Swinh. Cat. Het. Mus. Oxon. ii. p. 70, pl. ii. f. 13.

♀. Head and tegulæ rufous, the vertex of head and shaft of antennæ towards base whitish; thorax and abdomen olive-brown; pectus, legs, and ventral surface of abdomen ochreous white. Fore wing olive-brown, the costa pale rufous tinged with crimson especially towards apex and irrorated with some silvery scales; the base pale rufous: a small elongate white spot below middle of costa, and yellowish discoidal lunule; a faint dark postmedial line, strongly bent outwards below costa and defined by white above, then oblique and rather punctiform; a minutely waved blackish subterminal line with some silvery scales before it and series of white spots beyond it with rufous between them; cilia rufous with a fine black line at base. Hind wing olive-brown, the base pale; a subterminal series of slight black striæ with some silvery scales before it and series of white spots beyond it with rufous between them; cilia rufous with a fine black line at base; the underside whitish suffused with olive-brown, the costa and termen white.

Hab. Borneo, Sarawak (*Wallace*), type † ♀ in Mus. Oxon., Sandakan (*Pryer*), 1 ♀. *Exp.* 16 millim.

5451. Corgatha costipicta. (Plate CLVII. fig. 24.)

Corgatha costipicta, Hmpsn. Trans. Ent. Soc. 1895, p. 300; id. Moths Ind. iv. p. 519.

♀. Head yellow tinged with bright rufous, the vertex of head and shaft of antennæ towards base white; thorax and abdomen purplish brown with a greyish tinge; pectus, legs, and ventral surface of abdomen ochreous white. Fore wing purplish brown with a greyish tinge, the costa yellow suffused with crimson; small ante- and postmedial white spots with traces of slightly waved dark lines from them to inner margin; a small elongate white mark on costa at apex; a series of slight black striæ just before termen; cilia tinged with crimson and with a fine whitish line at base. Hind wing purplish brown with a greyish tinge; traces of a slightly waved postmedial line; a series of slight black striæ just before termen; cilia tinged with crimson and with a fine whitish line at base; the underside paler with dark discoidal lunule and curved postmedial line.

Hab. Sikhim (*Dudgeon*), 1 ♀ type. *Exp.* 16 millim.

5452. Corgatha argyrota, n. sp. (Plate CLVII. fig. 25.)

♀. Head, thorax, and abdomen whitish tinged with rufous, the palpi and frons redder, the shaft of antennæ towards base and a bar between their bases white, the abdomen irrorated with a few black scales; pectus, legs, and ventral surface of abdomen whitish. Fore wing whitish suffused with pale rufous and slightly irrorated with black and silvery scales, the costa white towards base; subbasal and

antemedial black points on costa and a slight inwardly oblique dark antemedial line; a slight dark discoidal point; a rather punctiform dark postmedial line slightly defined on outer side by whitish and with black point at costa, excurved to vein 4, then slightly incurved, the costa beyond it yellowish with slight blackish streaks; a faint minutely waved whitish subterminal line with dark diffused marks beyond it in the interspaces; a terminal series of black points; cilia orange-yellow. Hind wing pale rufous slightly irrorated with dark and silvery scales; a faint discoidal striga; a slight sinuous dark postmedial line faintly defined on outer side by whitish; traces of a pale minutely waved subterminal line with faint dark marks on its outer edge; a terminal series of black points; cilia orange-yellow; the underside brownish white, the terminal area suffused with red-brown.

Hab. Sangir (*Doherty*), 1 ♀ type. *Exp.* 20 millim.

5453. Corgatha niveicosta, n. sp. (Plate CLVII. fig. 26.)

♂. Head, thorax, and abdomen bright rufous; vertex of head and shaft of antennæ towards base pure white; palpi blackish at tips; the fore coxæ with tufts of blackish hair, the tarsi brown ringed with white, the ventral surface of abdomen whitish. Fore wing bright rufous with slight dark irroration; the costa pure white crossed by subbasal, ante- and postmedial black bars and a short streak towards apex with white point on it; a slight dark discoidal point; a slight dark postmedial line, excurved to vein 4, then incurved and again excurved towards inner margin; a fine waved dark terminal line with black points in the interspaces and white points beyond them at base of cilia. Hind wing pale rufous; a dark discoidal point, indistinct curved postmedial line and fine waved terminal line with slight white points beyond it at base of cilia; the underside whitish suffused with brown, a diffused curved brown postmedial line.

Hab. Borneo, Sarawak (*Wallace*), 1 ♂ type. *Exp.* 24 millim.

5454. Corgatha implexata.

Palara implexata, Wlk. xxiv. 1090 (1862); Swinh. Cat. Het. Mus. Oxon. ii. p. 69, pl. i. f. 26.

Head, thorax, and abdomen bright rufous, the vertex of head and shaft of antennæ towards base pure white, the palpi, frons, and fore legs redder; pectus, mid and hind legs, and ventral surface of abdomen whitish. Fore wing bright rufous slightly irrorated with silvery scales, the costa pure white; traces of an inwardly oblique dark antemedial line; a black discoidal point; a rather punctiform dark postmedial line with slight white points on its outer edge, excurved from costa to vein 4, then incurved and again excurved towards inner margin; some short red streaks on costa towards apex; a terminal series of black points. Hind wing bright rufous with slight silvery irroration; a black discoidal point; a rather

punctiform dark postmedial line with slight white points on its outer edge, excurved at median nervules; a terminal series of black

Fig. 91.—*Corgatha implexata*, ♂. ♀.

points; the underside whitish tinged with rufous, a black discoidal point and diffused curved rufous postmedial line.

Hab. Singapore (*Ridley*), 8 ♂, 1 ♀; Borneo, Sarawak (*Wallace*), 2 ♂, Kuching (*Shelford*), 2 ♂, 1 ♀, Sandakan (*Pryer*), 1 ♂. *Exp.* 22–24 millim. Type † ♂ in Mus. Oxon.

5455. **Corgatha leucosticta**, n. sp. (Plate CLVII. fig. 27.)

♂. Head, thorax, and abdomen bright rufous; pectus, mid and hind legs, and ventral surface of abdomen whitish. Fore wing bright rufous slightly irrorated with black and silvery scales; the costa dark brown irrorated with silver; subbasal and antemedial white points on costa; a black discoidal point; postmedial line white and bent outwards below costa, then reduced to a series of slight white points, excurved to vein 4, then incurved, some white points beyond it on costa; subterminal line white and angled inwards below costa, then faint, pale, sinuous; the costa white at apex; a slight waved dark terminal line with black points in the interspaces and slight white points beyond them at base of cilia. Hind wing bright rufous slightly irrorated with black and silvery scales; a dark discoidal point; a postmedial series of slight white points bent inwards at discal and submedian folds; faint traces of a minutely waved pale subterminal line; a fine waved dark terminal line and slight white line at base of cilia; the underside whitish suffused with rufous, a slight discoidal point and indistinct postmedial line.

Hab. Singapore (*Ridley*), 2 ♂ type. *Exp.* 18 millim.

5456. **Corgatha flavipuncta**, n. sp. (Plate CLVII. fig. 28.)

♂. Head and fore legs deep red; thorax and abdomen rufous; pectus, mid and hind legs, and ventral surface of abdomen whitish. Fore wing deep rufous slightly irrorated with black and silvery scales; an antemedial black point on costa; a round black discoidal spot; a punctiform black postmedial line with more prominent point at costa, yellowish points beyond them and a small yellow spot at inner margin, some white points beyond it on costa; a

terminal series of black points. Hind wing deep rufous slightly irrorated with black and silvery scales; a black discoidal point; a slight curved dark postmedial line with minute yellowish points on its outer edge: a terminal series of black points; the underside grey tinged with rufous, a faint discoidal point and curved postmedial line.

Hab. Singapore (*Ridley*), 3 ♂ type. *Exp.* 22 millim.

5457. Corgatha trichogyia. (Plate CLVII. fig. 29.)

Corgatha trichogyia, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 649 (1907).

♂. Head, thorax, and abdomen purplish rufous; antennæ blackish, the shaft white above towards base; mid and hind legs and ventral surface of abdomen ochreous white. Fore wing purplish rufous slightly irrorated with dark and silvery scales; small subbasal and antemedial black spots on costa and antemedial points on median nervure and vein 1; a large round black discoidal spot and small spot above it on costa; some yellowish white points with slight dark marks between them on costa towards apex; a terminal series of black points. Hind wing purplish rufous slightly irrorated with silvery scales; a small dark discoidal spot; postmedial series of slight white points and terminal series of black points; the underside pale ochreous with a faint purplish tinge, a slight discoidal point.

Hab. Ceylon, Pundaloya (*Green*), 1 ♂ type. *Exp.* 18 millim.

B. (*Corgatha*). Fore legs of male without tufts of hair, the mid and hind tibiæ moderately fringed with hair.
  a. Fore wing with white spots on costa.
    a^1. Fore wing with the costal spots rounded.
      a^2. Fore wing with four white spots on costa.
        a^3. Fore wing with the costa blackish ..... *minor*.
        b^3. Fore wing with the costa not blackish ..... *pusilla*.
      b^2. Fore wing with three white spots on costa, the subterminal spot absent ..... *costinotalis*.
      c^2. Fore wing with two white spots on costa, the subbasal spot absent.
        a^3. Fore wing bright rufous ..... *minuta*.
        b^3. Fore wing purplish grey, the costa irrorated with silvery scales ..... *dichionistis*.
    b^1. Fore wing with the costal spots oblique wedge-shaped ..... *argillacea*.
  b. Fore wing without white spots on costa.
    a^1. Fore wing with the ground-colour not pale yellow.
      a^2. Both wings with the cilia yellow.
        a^3. Fore wing with the costa yellow.
          a^4. Fore wing deep crimson, without pale postmedial line ..... *porphyrea*.
          b^4. Fore wing puplish red, with palé postmedial line ..... *flavicosta*.
        b^3. Fore wing with the costa red ..... *daphæna*.
      b^2. Wings with the cilia not yellow.
        a^3. Both wings with the subterminal line highly dentate except towards apex.

a^4. Fore wing with the costa white ..... *fuguralis.*
b^4. Fore wing with the costa not white.
a^5. Fore wing with pale streaks on the veins. *dictaria.*
b^5. Fore wing without pale streaks on the veins ....
b^3. Wings with the subterminal line not highly dentate.
a^4. Fore wing rufous to purplish brown.
a^5. Head with the vertex white.
a^6. Fore wing with the ante- and post-medial lines pale ..... *diploata.*
b^6. Fore wing with the ante- and post-medial lines dark ..... *albivertex.*
b^5. Head with white bar between antennæ.
a^6. Fore wing with the postmedial line excurved from below costa to vein 4, then incurved ....
b^6. Fore wing with the postmedial line oblique from below costa to inner margin ..... *rubra.*
c^5. Head without white on vertex.
a^6. Fore wing with antemedial, medial, and postmedial lines.
a^7. Fore wing with blackish patch on termen below apex; hind wing with blackish patch at tornus; the underside not yellow ..... *castanea.*
b^7. Wings without blackish patches; the underside yellow.
a^8. Wings tinged with fiery red ..... *hypoxantha.*
b^8. Wings not tinged with fiery red ... *terracotta.*
b^6. Fore wing without antemedial, medial, and postmedial lines and with oblique pale subterminal line .... *hebescens.*
b^4. Fore wing grey and fuscous.
a^5. Both wings irrorated with silvery scales . *argentisparsa.*
b^5. Both wings with silvery points on the subterminal line ....
c^5. Wings without silvery scales or points ... *melanistis.*
b^1. Fore wing with the ground-colour pale yellow ... *straminea.*

5458. Corgatha minor.

Capnodes minor, Moore, Lep. Ceyl. iii. p. 212, pl. 174, f. 11 (1885); Hmpsn. Moths Ind. ii. p. 347.

Head, thorax, and abdomen bright rufous, the vertex of head and shaft of antennæ towards base pure white, the ventral surface of abdomen whitish. Fore wing bright rufous with slight dark irroration; the costa black-brown with rounded white subbasal, ante- and postmedial patches, two white points and a small oblique mark towards apex; antemedial dark points on median nervure and vein 1; a dark discoidal point; a postmedial series of points oblique to vein 4, then incurved; faint traces of a sinuous subterminal line; a slight waved dark terminal line with points in the interspaces. Hind wing bright rufous with slight dark irroration; a dark discoidal point; traces of a curved postmedial line and sinuous subterminal line; a terminal series of minute black points; the

underside paler irrorated with rufous, the terminal area suffused with rufous, a dark discoidal point.

Hab. Ceylon, 1 ♂ type; Borneo, Sarawak (*Wallace*), 1 ♀. *Exp.* 20 millim.

5459. Corgatha pusilla. (Plate CLVII. fig. 30.)

Corgatha pusilla, Swinh. A. M. N. H. (7) xi. p. 505 (1903).

♀. Head, thorax, and abdomen bright rufous, the vertex of head with some white scales; pectus, legs, and ventral surface of abdomen whitish. Fore wing bright rufous: rather conical pure white subbasal, antemedial, and postmedial patches on costa and a rather wedge shaped patch at apex, the minutely waved indistinct somewhat oblique dark antemedial, postmedial, and subterminal lines arising from them; a terminal series of minute white striæ with dark striæ before them. Hind wing bright rufous with traces of minutely waved dark postmedial and subterminal lines; the underside whitish, the terminal area tinged with brown.

Hab. Siam, Muck-Lek (*Frühstorfer*), 1 ♀ type. *Exp.* 16 millim.

5460. Corgatha costinotalis. (Plate CLVII. fig. 31.)

Hypena costinotalis, Moore, P. Z. S. 1867, p. 83; Hmpsn. Moths Ind. ii. p. 347.

Head, thorax, and abdomen bright rufous; vertex of head white; antennæ blackish ringed with white towards base; pectus and ventral surface of abdomen whitish; fore tarsi ringed with white. Fore wing bright rufous with slight dark irroration; rounded white subbasal and antemedial spots on costa and a more triangular postmedial spot, with some black scales on their edges; a slight inwardly oblique sinuous antemedial line; a minute discoidal point; a minutely waved postmedial line excurved to vein 4, then incurved; faint traces of a sinuous subterminal line; a terminal series of black points. Hind wing bright rufous with slight dark irroration; an indistinct minutely waved dark postmedial line with black points on the veins; faint traces of a subterminal line; a terminal series of black points; the underside whitish tinged with rufous and irrorated with brown, a black discoidal lunule, sinuous brown postmedial line, and terminal series of black points.

Hab. Sikhim, 4 ♂, 3 ♀ type. *Exp.* 28 millim.

*5461. Corgatha minuta. (Plate CLVII. fig. 32.)

Capnodes minuta, Beth.-Baker, Nov. Zool. xiii. p. 284 (1906).

♂. Bright rufous; vertex of head pure white; antennæ with the shaft ringed with white towards base; hind legs and ventral surface of abdomen white. Fore wing irrorated and minutely striated with fuscous; ante- and postmedial large white patches on

costa defined by blackish; a blackish point in middle of cell and two on discocellulars; traces of a curved minutely waved postmedial line; traces of a pale waved subterminal line with slight fuscous marks in the interspaces; a terminal series of black points with white points beyond them at base of cilia. Hind wing slightly irrorated with fuscous; a fuscous discoidal point; a postmedial series of minute white points on the veins with some dark scales near them; faint traces of subterminal series of white and fuscous points; a terminal series of black points with white points beyond them at base of cilia; the underside paler with blackish discoidal spot and terminal series of points.

Hab. Br. New Guinea, Ekeikei, Aroa R. (*Pratt*), type † ♂ in Coll. Bethune-Baker; Queensland, Kuranda (*Dodd*). *Exp.* 20 millim.

5462. Corgatha dichionistis. (Plate CLVIII. fig. 1.)

Corgatha dichionistis, Turner, Pr. Linn. Soc. N. S. W. 1902, p. 113.

♂. Grey-brown irrorated with silvery scales; pectus and ventral surface of abdomen whitish with slight dark dorsal crests. Fore-wing with the basal and medial areas slightly suffused with brown, the costal area with black to beyond middle; large antemedial and postmedial white spots on costa; indistinct waved antemedial, medial, and postmedial dark lines, the last incurved below vein 2; a black discoidal bar; a terminal series of black spots; cilia rufous. Hind wing with slight dark irroration; a black discoidal point with indistinct line from it to inner margin; an indistinct slightly sinuous postmedial line; a terminal series of small black spots; the cilia rufous. Underside whitish towards base; both wings with black discoidal spots.

Hab. Queensland, Townsville (*Dodd*), 1 ♂, Brisbane, type † ♂ in Coll. Turner. *Exp.* 20 millim.

5463. Corgatha argillacea. (Plate CLXVIII. fig. 1.)

Epnasia argillacea, Butl. A. M. N. H. (5) iv. p. 450 (1879).

Head, thorax, and abdomen bright rufous; shaft of antennæ towards base and a bar between their bases white; pectus, legs, and ventral surface of abdomen whitish. Fore wing bright rufous; an oblique subbasal dark bar from costa defined on outer side by white and with blackish streak beyond it; a curved dark antemedial line with white bar before it from costa; a dark discoidal point; postmedial line dark, oblique from costa to vein 6, then inwardly oblique and slightly sinuous, a white patch beyond it on costa, followed by some white points with black streaks before them and oblique white striga before apex; terminal area with slight dark irroration; a series of white striæ on termen with black points before them; cilia tinged with crimson. Hind wing bright rufous; a dark discoidal point and straight postmedial line; the terminal

area with slight dark irroration; a terminal series of white striæ with black points before them; cilia tinged with crimson; the underside paler without the terminal black points, the cilia dark brown.

Hab. Japan, Sakata (*Leech*), 1 ♂, 1 ♀, Tsuruga (*Leech*), 1 ♂, Nagahama (*Leech*), 3 ♂, Yokohama (*Pryer*), 2 ♂ type; Corea, Gensan (*Leech*), 1 ♂, 1 ♀. *Exp.* 20–24 millim.

5464. **Corgatha porphyrea**, n. sp. (Plate CLVIII. fig. 2.)

♂. Head and tegulæ greyish brown; thorax and abdomen deep crimson; pectus, legs, and ventral surface of abdomen whitish faintly tinged with rufous. Fore wing deep crimson slightly irrorated with silvery scales, the costa yellowish white to near apex; a rather deeper crimson discoidal spot; cilia yellowish white tinged with crimson. Hind wing deep crimson slightly irrorated with silvery scales; the cilia yellowish white tinged with crimson, the cilia of inner margin pure white; the underside white tinged with rufous.

Hab. S. Nigeria, Olokemeji (*Dudgeon*), 1 ♂ type. *Exp.* 18 millim.

5465. **Corgatha flavicosta**, n. sp. (Plate CLVIII. fig. 3.)

♀. Head, thorax, and abdomen deep red, the vertex of head and antennæ towards base white; pectus, legs, and ventral surface of abdomen whitish tinged with rufous. Fore wing deep red, the costal area yellowish white slightly irrorated with red, narrowing to a point at apex; antemedial line yellowish white, straight, somewhat inwardly oblique; a whitish discoidal spot with a dark striga on it; postmedial line red-brown defined on outer side by whitish, very slightly curved; a deep fiery red terminal line; cilia chequered yellow and fiery red. Hind wing deep red; an indistinct darker discoidal bar and very slightly curved postmedial line faintly defined by yellowish white on outer side; a deep fiery red terminal line; cilia yellow mixed with fiery red; the underside ochreous white, the terminal area suffused with brown, a slight discoidal spot and curved postmedial line.

Hab. Solomon Is., Alu (*Woodford*), 1 ♀ type. *Exp.* 18 millim.

5466. **Corgatha daphœna**, n. sp. (Plate CLVIII. fig. 4.)

♂. Head, thorax, and abdomen whitish faintly tinged with rufous, the head, tegulæ, and abdomen except at base suffused with fiery red; pectus, legs, and ventral surface of abdomen white, the fore and mid tibiæ and tarsi tinged with rufous in front. Fore wing whitish suffused in parts with purplish rufous and irrorated with silver, the costal edge fiery red, the base and area below costa whiter: an indistinct obliquely curved red-brown antemedial line; a discoidal point and faint oblique minutely waved line from

lower angle of cell to inner margin; postmedial line red-brown, minutely waved, excurved from costa to vein 4, then incurved and again slightly bent outwards at vein 1; terminal area suffused with purplish rufous except at apex; a terminal series of dark brown striæ; cilia fiery red, whitish at tips. Hind wing violaceous whitish irrorated with silvery scales; rather diffused red-brown antemedial, medial, and postmedial lines; terminal area red-brown; cilia fiery red, whitish at tips; the underside whitish with faint rufous discoidal spot and diffused curved postmedial line.

Hab. Queensland, Brisbane (*Turner*), 1 ♂ type. *Exp.* 18 millim.

5467. Corgatha figuralis. (Plate CLVIII. fig. 5.)

Scopula figuralis, Wlk. xxxiv. 1475 (1865).
Madopa leucocrossa, Lucas, Pr. R. Soc. Queensl. xiii. p. 77 (1898).

Head and thorax pale rufous; vertex of head, shaft of antennæ towards base, and tegulæ whitish; abdomen rufous irrorated with black and with whitish segmental lines; pectus, femora, hind legs, and ventral surface of abdomen whitish. Fore wing deep rufous irrorated with black, the costal area white; antemedial line white, inwardly oblique below submedian fold; a blackish discoidal spot with white bar on its outer side; postmedial line white, inwardly oblique and almost straight; an irregularly dentate white subterminal line, more strongly angled outwards on veins 4, 3, 1; a terminal series of black points; cilia with fine white line at base. Hind wing deep rufous irrorated with black; a black discoidal spot; postmedial line white, excurved below costa, then straight; subterminal line white, dentate except towards apex and with slight white streaks beyond it on the veins; a terminal series of black points; cilia with a fine white line at base; the underside white tinged with rufous, the terminal area suffused with rufous, a black discoidal lunule and curved brownish postmedial line.

Hab. Queensland, Brisbane (*Turner*), 1 ♂, 2 ♀; Moreton Bay (*Diggles*), 1 ♂ type; W. Australia (*Diggles*), 1 ♀. *Exp.* 20–22 millim.

5468. Corgatha dictaria. (Plate CLVIII. fig. 6.)

Acidalia dictaria, Wlk. xxiii. 759 (1861).
Oruza liberata, Wlk. xxiv. 1089 (1861).
Acantholipes metalligera, Butl. Trans. Ent. Soc. 1881, p. 190.
Corgatha tana, Swinh. Cat. Het. Mus. Oxon. ii. p. 69, pl. ii. f. 9 (1900).

Head, thorax, and abdomen pale rufous; vertex of head whitish; pectus and ventral surface of abdomen whitish. Fore wing rufous mixed with ochreous white and irrorated with fuscous and silvery scales; a subbasal black point on costa; antemedial line white with black points before and beyond it on costa; angled outwards below costa, then inwardly oblique and slightly sinuous; a black discoidal

point defined by white on outer side; postmedial line white with black points on costa, bent outwards below costa, then inwardly oblique, straight; subterminal line white, slightly excurved below vein 7 and angled outwards at veins 4, 3, 2, 1; a terminal series of black points; cilia with a fine white line at base. Hind wing deep rufous mixed with ochreous white and irrorated with fuscous and silvery scales; a blackish discoidal spot; postmedial line white, slightly excurved; subterminal line white, dentate except towards apex and with slight whitish streaks beyond it on the veins; a terminal series of blackish points; cilia with a fine white line at base; the underside white tinged with rufous, a slight discoidal spot and faint brownish postmedial line.

Hab. Japan, Nara (*Lewis*), 1 ♀, Tokio (*Maries*), 1 ♂, 1 ♀ type, Yokohama (*Pryer*), 1 ♀; Centr. China, Shanghai (*de la Garde*), 3 ♂ type and type *liberata*, Chungking, 1 ♂. *Exp.* 18–20 millim. Type † ♂ *tana* in Museum Oxon.

5469. Corgatha zonalis.

Corgatha zonalis, Wlk. xvi. 216 (1858); Hmpsn. Ill. Het. B. M. ix. p. 123, pl. 167. f. 16; id. Moths Ind. ii. p. 347.
Ausinza æqua, Wlk. Journ. Linn. Soc., Zool. vii. p. 192 (1864); Swinh. Cat. Het. Mus. Oxon. ii. p. 70, pl. ii. f. 18.

Head, thorax, and abdomen bright rufous; antennæ ringed with white towards base; pectus, legs, ventral surface of abdomen, and anal tuft ochreous white. Fore wing bright rufous slightly irrorated with dark and silvery scales; a small black subbasal mark on costa; antemedial line whitish with black marks before and

Fig. 92.—*Corgatha zonalis*, ♂. ⅔.

beyond it on costa, angled outwards below costa, then inwardly oblique; a blackish discoidal point with black point above it on costa; postmedial line whitish slightly defined on each side by brown, arising just below costa, inwardly oblique, some whitish points beyond it on costa; subterminal line whitish, rather strongly dentate, the veins beyond it with slight whitish streaks; a series of black striæ just before termen; cilia with fine white line at base and whitish tips. Hind wing bright rufous slightly irrorated with dark and silvery scales; a slight blackish discoidal spot; postmedial line whitish slightly defined on each side by brown, almost straight; an indistinct irregularly dentate whitish subterminal line with

slight whitish streaks beyond it on the veins; a series of slight black striæ just before termen; cilia with fine white line at base and whitish tips; the underside white tinged with rufous especially towards termen.

Hab. Bhután (*Dudgeon*), 1 ♀; Bengal, Calcutta, 1 ♀; Ceylon (*Mackwood*, *Green*), 3 ♂ type; Siam, Biserat, 1 ♀; Singapore (*Ridley*), 1 ♀; Borneo, Sarawak (*Wallace*), 3 ♀. *Exp.* 14–22 millim. Type † ♀ in Mus. Oxon.

5470. Corgatha diploata, n. sp. (Plate CLVIII. fig. 7.)

♀. Head, thorax, and abdomen purplish brown tinged with grey, the vertex of head whitish; pectus and ventral surface of abdomen whitish. Fore wing purplish brown tinged with grey; a subbasal dark point on costa; antemedial line double filled in with whitish, excurved below costa, then sinuous; a small dark discoidal spot; postmedial line dark defined on outer side by whitish, oblique from costa to vein 7, incurved below vein 4 and again excurved at vein 1, some whitish points beyond it on costa; subterminal line whitish, angled inwards at discal and submedian folds and outwards at veins 4, 3; a terminal series of slight dark points; cilia with a fine white line at base and whitish tips. Hind wing purplish brown tinged with grey; a dark discoidal point; medial line defined on outer side by whitish and excurved at middle; traces of a pale waved subterminal line; cilia with fine white line at base and whitish tips; the underside whitish tinged with purplish brown, a slight discoidal spot and curved postmedial line.

Hab. Java (*Tengström*), 1 ♀ type. *Exp.* 18 millim.

5471. Corgatha albivertex. (Plate CLVIII. fig. 8.)

Corgatha albivertex, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 649 (1907).

♂. Head, thorax, and abdomen rufous, the vertex of head pure white; palpi, antennæ, and fore legs in front blackish; hind legs and ventral surface of abdomen whitish. Fore wing rufous irrorated with black, the costal edge blackish towards base; traces of a sinuous blackish antemedial line; a black discoidal point; postmedial line punctiform, black, excurved from below costa to vein 4, then incurved; subterminal line blackish, dentate, excurved at middle; a terminal series of black points. Hind wing rufous with slight blackish irroration; a blackish discoidal point with two blackish points between it and inner margin; a punctiform blackish postmedial line, excurved at median nervules; a rather diffused minutely dentate blackish subterminal line; a terminal series of black points; the underside whitish faintly tinged with rufous, a slight dark discoidal spot.

♀. Both wings with the lines more distinct.

Hab. Ceylon, Puttalam (*Pole*). 2 ♂, Matale (*Pole*), 1 ♀ type. *Exp.* 22 millim.

5472. **Corgatha argenticosta**, n. sp. (Plate CLVIII. fig. 9.)

♀. Head and tegulæ red-brown; antennæ with the shaft ringed with white towards base and with a white bar between their bases; thorax and abdomen pale rufous; pectus, hind legs, and ventral surface of abdomen whitish. Fore wing rufous sparsely irrorated with black, the costa black suffused with silver to near apex; traces of a sinuous dark antemedial line; a black discoidal point; postmedial line blackish with slight black points on the veins and faintly defined on outer side by whitish, oblique from costa to vein 6 and excurved below vein 4; a faint pale subterminal line slightly defined on outer side by fuscous, dentate at veins 4, 3; a terminal series of black points. Hind wing rufous irrorated with blackish; a black discoidal point, punctiform postmedial line, faint pale subterminal line and terminal series of black points; the underside white tinged with brown, a black discoidal point and curved brownish postmedial line.

Hab. Bhután, 2,500′ (*Dudgeon*), 1 ♀ type. *Exp.* 22 millim.

5473. **Corgatha rubra.**

Mestleta rubra, Hmpsn. Ill. Het. B. M. viii. p. 92, pl. 147. f. 16 (1891); id. Moths Ind. ii. p. 347.

♀. Head dark brown; antennæ with the shaft ringed with white towards base and white bar between their bases; thorax and abdomen rufous; pectus, legs, and ventral surface of abdomen whitish. Fore wing rufous with slight dark irroration, the costa dark brown; a black discoidal point; postmedial line brown defined on outer side by whitish, oblique from costa to vein 7, then inwardly oblique, straight; a slight white mark on costa at apex; a terminal series of black points. Hind wing rufous with slight dark irroration; a black discoidal point; postmedial line brown defined on outer side by whitish, straight; a terminal series of black points; the underside white tinged and irrorated with brown, a black discoidal point and diffused brown postmedial line.

Hab. Madras, Nilgiris (*Hampson*), 2 ♀ type; Ceylon, Pundaloya (*Green*), 1 ♀. *Exp.* 20–24 millim.

5474. **Corgatha castanea.** (Plate CLVIII. fig. 10.)

Corgatha castanea, Hmpsn. Moths Ind. iv. p. 519 (1896).
Corgatha bipunctata, Beth.-Baker, Nov. Zool. xiii. p. 213 (1906).
Capnodes griseiplaga, Beth.-Baker, Nov. Zool. xv. p. 202 (1908).

♀. Head blackish with some rufous on vertex; thorax and abdomen rufous slightly irrorated with black, the latter with dorsal black segmental lines except towards base; pectus, legs, and ventral surface of abdomen whitish tinged with rufous, the tarsi fuscous ringed with white. Fore wing rufous, the basal area and costal area to postmedial line sparsely irrorated with black: the costal edge black on basal half; slight antemedial white points on costa and vein 1; a slight black discoidal point; postmedial

line with white point at costa, then black, bent outwards below costa, then reduced to points on the veins with white points beyond them, excurved to vein 4, then incurved and again continuous below submedian fold; a diffused subterminal blackish patch between veins 7 and 5, sometimes connected with the terminal points; a series of black points just before termen; cilia with black patch below apex. Hind wing rufous, the basal and inner areas sparsely irrorated with black; some black-irrorated marks at middle of inner area; a postmedial series of slight black points with white points beyond them; a patch of black-irrorated marks on tornal area; a series of black points just before termen; cilia with some black at tips towards tornus; the underside pale rufous.

Hab. Ceylon, Nawalapitiya (*Mackwood*), 1 ♀ type, Pattalam (*Pole*), 1 ♀; Br. N. Guinea, Dinawa (*Pratt*), types *bipunctata* and *griseiplaga* in Coll. Bethune-Baker. *Exp.* 26 millim.

5475. Corgatha hypoxantha. (Plate CLVIII. fig. 11.)

Corgatha hypoxantha, Hmpsn. P. Z. S. 1910, p. 411.

♂. Head, thorax, and abdomen yellow strongly suffused with rufous; pectus, legs, and ventral surface of abdomen yellow. Fore wing yellow strongly suffused with rufous and irrorated with red-brown, the costa and terminal area tinged with grey-brown; antemedial line brown, waved; a blackish point in middle of cell; medial line brown, slightly sinuous; postmedial line brown, excurved below costa, at middle and to inner margin, with white points on its outer edge at veins 7, 6, 4, 3, 1; subterminal line brown, excurved below vein 7 and at middle and slightly waved; a series of black points just before termen; a fine terminal red line; cilia with a red line at middle. Hind wing yellow suffused with rufous and irrorated with red-brown; an indistinct oblique brown antemedial line; postmedial line indistinct, brown, excurved at middle and with slight black and white points on its outer edge at veins 4, 3, 2; an indistinct waved brown subterminal line; a series of minute black points just before termen; a fine red terminal line; cilia pencilled with red. Underside of both wings yellow, the apex of fore wing irrorated with rufous.

Hab. N.E. Rhodesia, E. Luangwa Distr., Petauke (*Neave*), 1 ♂ type, Kulungwisi (*Neave*), 1 ♂. *Exp.* 26 millim.

*5476. Corgatha terracotta.

Corgatha argillacea, de Joan. Ann. Soc. Ent. Fr. 1906, p. 173, pl. 9. f. 5 (nec Butl. 1879).
Corgatha terracotta, de Joan. ined.

♂. Head, thorax, and abdomen pale red-brown; pectus and ventral surface of abdomen whitish. Fore wing pale red-brown with slight dark irroration; antemedial and medial lines indistinct, dark, waved; a black point in middle of cell; postmedial

line indistinct, dark, oblique from costa to vein 7, then waved, incurved below vein 4 and excurved above inner margin, with minute black and white points on it at veins 6, 4, 3, 1; subterminal line indistinct, dark, excurved below vein 7 and at middle: a series of black points just before termen. Hind wing pale red-brown with slight dark irroration; traces of a curved antemedial line and dark medial line; postmedial and subterminal lines indistinct, dark, minutely waved; a series of black points just before termen; cilia with a rufous line through them. Underside of both wings yellow with the termen tinged with rufous.

Hab. Mauritius, Curepipe, type † ♂ in Coll. Joannis. *Exp.* 24 millim.

5477. Corgatha hebescens. (Plate CLVIII. fig. 12.)

Anthophila hebescens, Butl. A. M. N. H. (5) iv. p. 366 (1879).

♀. Head and thorax fuscous brown mixed with grey, the patagia with some pale rufous hair; abdomen grey mixed with brown. Fore wing pale rufous mixed with grey and slightly irrorated with brown, the basal half suffused with yellowish except towards costa; an indistinct oblique diffused yellowish subterminal line. Hind wing reddish brown mixed with grey, the cilia pinkish white, the underside white slightly irrorated with red-brown.

Hab. Japan, Yokohama (*Pryer*), 1 ♀ type. *Exp.* 22 millim.

5478. Corgatha argentisparsa. (Plate CLVIII. fig. 13.)

Pisara argentisparsa, Hmpsn. Trans. Ent. Soc. 1895, p. 297; id. Moths Ind. iv. p. 505.

♂. Head fuscous mixed with some olive and white; tegulæ and prothorax white faintly tinged with brown, the rest of thorax and abdomen greyish fuscous; pectus, fore and mid legs at base, hind legs, and ventral surface of abdomen white. Fore wing whitish almost entirely suffused with greyish fuscous and irrorated with black and silvery scales, tinged in parts with olive-brown; traces of a minutely waved dark antemedial line; a very indistinct dark discoidal spot and traces of an oblique line from lower angle of cell to inner margin; postmedial line white, minutely waved and oblique from costa to vein 4, then incurved and punctiform, angled outwards at vein 1, some white points beyond it on costa; an indistinct, minutely waved whitish subterminal line; a terminal series of slight dark lunules with minute white points before them. Hind wing fuscous grey tinged with olive-brown and irrorated with black and silvery scales; a faint diffused antemedial dark shade; a sinuous postmedial series of white points; faint traces of a pale subterminal line; a fine dark terminal line; the underside blue-grey slightly tinged with brown, a dark discoidal spot and diffused curved postmedial line.

Hab. Punjab, Simla (*Harcourt-Pilcher*), 2 ♂ type. *Exp.* 24 millim.

*5479. Corgatha gemmifera. (Plate CLVIII. fig. 14.)

Micraeschus gemmifer, Hmpsn. Moths Ind. ii. p. 353 (1894).

♂. Head, thorax, and abdomen grey suffused with reddish brown; pectus, legs, and ventral surface of abdomen paler. Fore wing grey tinged with rufous and slightly irrorated with blackish, the costa blackish with some silvery suffusion; traces of a double sinuous antemedial line; a diffused blackish discoidal spot; postmedial line unusually near termen, indistinct, double, minutely waved, curved, a black spot near it in discal fold confluent with the prominent black subterminal line with series of silvery points on it, slightly excurved at middle; a fine black terminal line; cilia chequered fuscous and grey. Hind wing grey tinged with rufous and thickly irrorated with blackish; a waved blackish medial line; postmedial line waved, angled inwards in discal fold, then excurved; a prominent black subterminal line with series of silvery points on it; a fine black terminal line; cilia grey tinged with fuscous except at base; the underside grey-white, the terminal area suffused with fuscous, diffused fuscous medial and postmedial lines.

Hab. Burma, E. Pegu, 4000′ (*Doherty*), type † ♂ in Coll. Rothschild. *Exp.* 16 millim.

5480. Corgatha melanistis, n. sp. (Plate CLVIII. fig. 15.)

♀. Head and thorax whitish tinged with rufous, the vertex of head whiter; palpi blackish at tips; tarsi fuscous ringed with whitish; abdomen whitish tinged with rufous, dorsally suffused with fuscous except at base. Fore wing whitish tinged with rufous, the costal area suffused with black and irrorated with leaden-grey scales to postmedial line; a black point below base of cell and subbasal black striga from costa; antemedial line blackish, waved, somewhat inwardly oblique; a black discoidal spot and traces of a minutely waved oblique black line from lower angle of cell to inner margin; postmedial line rather diffused, blackish with some leaden-grey scales on it, slightly excurved beyond lower angle of cell, then incurved, some whitish points beyond it on costa with slight black streaks between them; subterminal line blackish irrorated with leaden-grey scales and with black-brown suffusion before it, excurved below vein 7 and at middle and incurved at discal fold and below vein 3; a fine black terminal line; cilia blackish with a whitish line at base. Hind wing ochreous suffused with deep red-brown except at base and on terminal area towards apex; a diffused black antemedial line, discoidal striga, diffused sinuous postmedial line and minutely waved subterminal line irrorated with leaden-grey scales; a fine black terminal line; cilia red-brown and blackish with whitish line at base; the underside ochreous white suffused with brown except at base and on costal area to middle, a slight discoidal striga and diffused curved postmedial line.

Hab. Up. Burma, N. Shán States (*Bingham*). 1 ♀ type. *Exp.* 16 millim.

5481. Corgatha straminea.

Pseudephyra straminea, Butl. Trans. Ent. Soc. 1886, p. 422, pl. x. f. 10.

Head and thorax yellowish white, the palpi, antennæ, and legs yellower; abdomen yellowish white at base, then black-brown, the anal tuft and ventral surface yellowish white. Fore wing pale yellow; the basal area suffused with black-brown and irrorated with silver, its outer edge curved; a black point in middle of cell and small discoidal lunule with some silvery scales on them; postmedial area black-brown, its inner edge incurved at discal fold, excurved beyond lower angle, then incurved, its outer edge excurved below vein 7 and at middle, then incurved, a silvery postmedial line excurved at middle, then incurved; the termen yellowish irrorated with black-brown. Hind wing pale yellow, the base suffused with black-brown; a black discoidal point; the terminal area broadly black-brown with the curved silvery postmedial line on it and the termen irrorated with silver; cilia yellow mixed with black-brown; the underside yellowish white, the terminal area black-brown, a black discoidal point.

Hab. Queensland, Peak Downs, 1 ♂, 1 ♀ type. *Exp.* 20 millim.

Genus COBUBATHA.

	Type.
Cobubatha, Wlk. xxvii. 126 (1863)	*metaspilaris.*
Tripudia, Grote, Can. Ent. ix. p. 70 (1877)	*quadrifera.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about middle of frons and moderately scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male somewhat laminate and minutely ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the mesothorax with slight paired crests, the metathorax with depressed crest; tibiæ slightly fringed with hair; abdomen with crests on basal segments, the crest on 2nd segment typically large. Fore wing with the apex rounded, the termen slightly excurved at middle and oblique towards tornus, not crenulate: veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the medial area chocolate-red ..... *hippotes.*
B. Fore wing with the medial area not chocolate-red.
  a. Fore wing with black-brown patch on inner medial area.
    a^1. Fore wing with the patch on inner medial area rounded above.
      a^2. Fore wing with the patch on inner medial area broad, its outer edge not excised towards inner margin . *idicra.*
      b^2. Fore wing with the patch on inner medial area narrower, its outer edge excised towards inner margin ..... *hirasa.*
    b^1. Fore wing with the patch on inner medial area triangular..... *metaspilaris.*
    c^1. Fore wing with the patch on inner medial area truncate conical.
      a^2. Fore wing with black-brown patches on termen at discal and submedian folds ..... *numa.*

b^2. Fore wing with a series of black points on termen . *punctifinis.*
c^2. Fore wing with fine black terminal line.
a^3. Fore wing with the subterminal line incurved at discal fold and angled outwards at middle..... *ochrocraspis.*
b^3. Fore wing with the subterminal line not incurved at discal fold or angled outwards at middle ... *quadrifera.*
b. Fore wing without black-brown patch on inner medial area.
a^1. Hind wing orange.
a^2. Head, thorax, and base of fore wing pale ..... *lindata.*
b^2. Head, thorax, and base of fore wing black-brown... *orcidia.*
b^1. Hind wing not orange.
a^2. Fore wing with the base black-brown.
a^3. Fore wing with the oblique antemedial band orange-yellow .. ..
b^3. Fore wing with the oblique antemedial band ochreous tinged with rufous ..... *luda.*
c^3. Fore wing without antemedial band ..... *goyanensis.*
b^2. Fore wing with the base grey followed by an oblique ochreous antemedial band.
a^3. Fore wing without black-brown patch before middle of subterminal line ..... *balteata.*
b^3. Fore wing with black-brown patch before middle of subterminal line..... *gilda.*
c^2. Fore wing with the basal area pale.
a^3. Fore wing with the postmedial and subterminal lines not defined by silvery grey ..... *bipars.*
b^3. Fore wing with the postmedial and subterminal lines defined by silvery grey ..... *semipallida.*
d^2. Fore wing with the basal area concolorous.
a^3. Fore wing reddish brown suffused with grey.
a^4. Fore wing without strong black subterminal shade.
a^5. Fore wing with some cupreous red at apex... *luxuriosa.*
b^5. Fore wing without cupreous red at apex..... *subterminata.*
b^4. Fore wing with strong black subterminal shade ..... *umbrifera.*
b^3. Fore wing black-brown suffused with purplish grey .....

5482. Cobubatha hippotes.

Thalpochares hippotes, Druce, Biol. Centr.-Am., Het. i. p. 315, pl. 29. f. 17 (1889).

♀. Head, thorax, and abdomen greyish brown; palpi whitish at tips; lower part of frons whitish; pectus, legs, and ventral surface of abdomen white tinged with brown, the fore tibiæ and the tarsi blackish ringed with white. Fore wing purplish grey, the terminal area tinged with rufous, the medial area deep chocolate-red edged with fine black lines defined by whitish, narrowing towards costa, its inner edge slightly incurved, its outer edge oblique to below vein 2 where it is angled; a small black discoidal spot defined by whitish; some white points on postmedial part of costa; traces of a pale curved subterminal line; a very fine black terminal line defined slightly on inner side by whitish; cilia whitish at tips. Hind wing cupreous brown, the cilia whitish at tips; the underside whitish

irrorated with brown, traces of a discoidal point and curved postmedial line.

Hab. Mexico, Guerrero (*H. H. Smith*). 1 ♀ type, Godman-Salvin Coll. *Exp.* 20 millim.

5483. Cobubatha idicra.

Thalpochares idicra, Druce, Biol. Centr.-Am., Het. i. p. 314, pl. 29. f. 15 (1889).

Head and thorax reddish brown tinged with grey, the head with white mixed, the tegulæ with fine white medial line; pectus and legs whitish tinged with brown, the fore tibiæ and tarsi black-brown ringed with white; abdomen dark brown, the crests black, the ventral surface whitish. Fore wing greyish suffused with rufous, a large conical black-brown patch on inner medial area extending into the cell, defined by white; a subbasal white point on costa; antemedial line white slightly defined on each side by brown, oblique to subcostal nervure, then obliquely incurved; a black discoidal point with an oblique waved striga above it from costa defined on inner side by red-brown and on outer by grey; postmedial area suffused with red-brown from costa to vein 3 with some pale points on costa, defined on outer side by the grey subterminal line, excurved below vein 7 and at middle and obsolete below vein 2; a fine black terminal line defined on inner side by grey. Hind wing dark cupreous red-brown; cilia whitish at tips; the underside grey irrorated with brown, a dark discoidal spot and postmedial line excurved below costa.

Hab. Mexico, Guerrero (*H. H. Smith*), 1 ♀; Guatemala, S. Geronimo (*Champion*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 20–24 millim.

5484. Cobubatha hirasa.

Thalpochares hirasa, Druce, Biol. Centr.-Am., Het. i. p. 314, pl. 29. f. 16 (1889).

Head, thorax, and abdomen grey suffused with red-brown; palpi with some white; pectus, legs, and ventral surface of abdomen white tinged with brown, the fore tibiæ and the tarsi blackish ringed with white, the abdominal crests black. Fore wing pale rufous with slight dark irroration; a black mark on inner medial area expanding on outer side above and forming a club-shaped mark, defined by white; the antemedial part of costa with alternating black and white points; a black striga from costa to inner edge of the medial black patch; a small wedge-shaped medial black mark from costa with sinuous outer edge and black striga from it to outer edge of the club-shaped patch; a black discoidal point; postmedial line represented by a blackish striga from costa and a faint sinuous line from lower angle of cell to inner margin, some slight pale points beyond it on costa; subterminal line slight, dark, excurved below vein 7 and at middle; a terminal series of slight

black striæ. Hind wing greyish suffused with red-brown, the cilia whiter; the underside white irrorated with brown, a small discoidal spot and traces of a curved postmedial line.

Hab. Mexico, Presidio (*Forrer*), 1 ♂, 1 ♀ type, Yucatan (*Gaumer*), 1 ♀, Godman-Salvin Coll. *Exp.* 20 millim.

5485. Cobubatha metaspilaris. (Plate CLVIII. fig. 16.)

Cobubatha metaspilaris, Wlk. xxvii. 126 (1863).
Agrophila signiferana, Wlk. xxxiii. 775 (1865).

Head and thorax grey mixed with black-brown; fore tibiæ and the tarsi black ringed with white; abdomen grey irrorated with brown, the crests blackish. Fore wing whitish suffused with rufous; a large conical black-brown patch on inner medial area, extending into the cell, defined by whitish and its edges rather irregular; a faint pale subbasal spot on costa with some blackish beyond it; antemedial line slight, black defined on inner side by whitish, from costa to the medial patch, angled outwards below costa; some blackish on costa before the slight, black medial line bent inwards to the apex of the medial patch, some whitish beyond it; reniform faintly defined by whitish, small, figure of eight-shaped; postmedial line very indistinct, double, bent outwards below costa, slightly incurved at discal fold, incurved below vein 4 and oblique to inner margin, the costa beyond it black with slight pale points; subterminal line whitish slightly defined on inner side by black, excurved below vein 7 and at middle and angled inwards in submedian fold; a black lunule on termen at discal fold and line from vein 4 to 1, slightly defined on inner side by whitish; cilia black with some whitish at apex and middle. Hind wing whitish suffused with cupreous brown, the cilia paler; the underside whitish irrorated with brown, a slight discoidal point, traces of postmedial and subterminal lines and a fine terminal line.

Hab. Haiti (*Tweedie*), 1 ♂, 1 ♀ type and type *signiferana*. *Exp.* 16–18 millim.

5486. Cobubatha numa.

Eustrotia numa, Druce, Biol. Centr.-Am., Het. i. p. 312, pl. 29. f. 6 (1889).

Head and thorax reddish brown mixed with whitish: pectus and legs whitish tinged with brown, the fore tibiæ and the tarsi blackish ringed with white; abdomen grey suffused with brown, the crest on 2nd segment darker, the ventral surface whitish. Fore wing whitish, suffused with rufous, and with a silvery gloss: a subbasal silvery spot on costa; a truncate conical blackish brown patch on inner medial area, extending into the cell and bounded by black lines defined by whitish suffusion, a slight black line from costa to its inner edge, angled outwards below costa; an obliquely incurved black line on the dark patch from cell to inner margin; a pale silvery patch from costa to beyond the cell with a dark patch before

it, the costal edge beyond it black with white points on it; a very indistinct double subterminal line excurved below costa and at middle; terminal area ochreous white; a black terminal line expanding into a triangular spot at discal fold; cilia black, whitish at apex, middle and tornus. Hind wing whitish suffused with dark brown; a fine dark terminal line; cilia whitish tinged with brown; the underside whitish irrorated and suffused with brown.

Hab. Mexico, Vera Cruz (*H. H. Smith*), 1 ♂ type, Tabasco (*H. H. Smith*), 1 ♀, Presidio (*Forrer*), 1 ♂, Godman-Salvin Coll.; Colombia, Sta. Marta (*Bouchard*), 1 ♂. *Exp.* 16–18 millim.

5487. Cobubatha punctifinis, n. sp. (Plate CLVIII. fig. 17.)

♂. Head and thorax grey-white mixed with black-brown; tarsi black-brown ringed with whitish; abdomen grey-brown, the crests blackish. Fore wing whitish tinged with brown and irrorated with blackish, the inner half of medial area black-brown; a subbasal black point on costa and curved mark below the cell; a small antemedial triangular black mark on costa; antemedial line whitish, bounding the black area on inner side, oblique from costa to subcostal nervure, then inwardly oblique; medial line whitish, defining the outer edge of black area, slightly angled inwards in cell, then obliquely and slightly sinuous; a black discoidal point; postmedial line hardly traceable except from lower angle of cell to inner margin; subterminal line with dark patch at costa, then slight, incurved below vein 3; a terminal series of black points. Hind wing whitish suffused with dark brown, the underside whitish irrorated with brown.

Hab. Bahamas, Andros (*Bonhote*), 1 ♂ type. *Exp.* 16 millim.

5488. Cobubatha ochrocraspis, n. sp. (Plate CLVIII. fig. 18.)

Eustrotia numa, Druce, Biol. Centr.-Am., Het. i. p. 312 (part.).

♂. Head, thorax, and abdomen fuscous brown slightly mixed with grey; pectus, legs, and ventral surface of abdomen white tinged with brown, the fore tibiæ and the tarsi black ringed with white, the crest on 4th segment of abdomen black. Fore wing rufous, the medial area paler with a silvery gloss and a truncate conical red-brown patch edged by black lines on it from inner margin to vein 2; a subbasal dark striga from costa on a pale spot; traces of a double sinuous antemedial line; a dark spot in end of cell; postmedial line indistinct, double, excurved below costa, then incurved, some whitish striæ beyond it from costa; subterminal line black defined on inner side by deeper rufous suffusion and on outer by silvery white, excurved below costa, slightly angled outwards at middle and incurved at submedian fold; a black terminal line slightly defined on inner side by yellowish. Hind wing dark cupreous brown; a fine black terminal line; cilia whitish tinged with brown; the underside with the costal half pale

rufous, the inner half whitish, a small black discoidal spot, minutely waved postmedial and subterminal lines with black points at discal fold, and terminal series of black striæ.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 16 millim.

5489. Cobubatha quadrifera.

Erastria quadrifera, Zell. Verh. zool.-bot. Ges. Wien, xxiv. p. 425, pl. 12. f. 2 (1874); Smith, Cat. Noct. N. Am. p. 315.
Eustrotia catiena, Druce, Biol. Centr.-Am., Het. i. p. 313, pl. 29. f. 9 (1889).

Head, tegulæ, and patagia purplish grey mixed with brown, the tegulæ with pale medial line, the dorsum of thorax black-brown; pectus and legs white tinged with brown, the tarsus fuscous ringed with white; abdomen grey, the crest on 4th segment black, the ventral surface white. Fore wing purplish grey irrorated and in parts suffused with red-brown, a rather oblique quadrate chocolate-brown patch on inner medial area; a minute brown spot below the cell before the faint red-brown antemedial line which is angled inwards in cell and outwards in submedian fold, then oblique; a small oblique U-shaped black mark in upper extremity of cell;

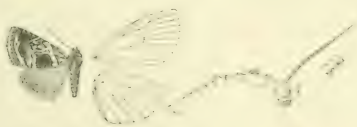

Fig. 93.—*Cobubatha quadrifera*, ♂. $\frac{1}{2}$.

postmedial line indistinct, double, oblique from costa to vein 6, then inwardly oblique and very minutely waved, some red-brown suffusion beyond it on costal area with white striæ from costa; subterminal line blackish, with slight black streak before it below costa, excurved below vein 7, very indistinct below vein 4 and angled inwards on vein 1; a fine terminal black line slightly defined on inner side by white; cilia brown finely striated with grey. Hind wing reddish brown, the cilia whitish at tips; the underside white irrorated with brown, a discoidal bar, indistinct sinuous postmedial and subterminal lines, and fine black terminal line.

Hab. U.S.A., Missouri, Texas (*Meske*), 2 ♀, Dallas (*Boll*), 1 ♀ type, Kerrville, 1 ♂; Mexico, Vera Cruz (*H. H. Smith*), 2 ♂, 1 ♀, Guerrero (*H. H. Smith*), 1 ♂, 1 ♀ type *catiena*, Tabasco (*H. H. Smith*), 2 ♀, Morelos (*H. H. Smith*), 1 ♀, Jalapa (*Trujillo, Schaus*), 1 ♂, 2 ♀, Presidio (*Forrer*), 1 ♂, Godman-Salvin Coll.; Panama, La Chorera (*Dolby-Tyler*), 1 ♂, 1 ♀; Colombia, Sta. Marta (*Bouchard*), 1 ♂; Jamaica, Constant Springs (*Walsingham*), 1 ♂,

1 ♀, Runaway Bay (*Walsingham*), 1 ♂, 2 ♀, Moneague (*Walsingham*), 1 ♂, 1 ♀; Grenada (*H. H. Smith*), 1 ♂, 5 ♀; Br. Guiana (*Rodway*), 2 ♂, 3 ♀. *Exp.* 12–20 millim.

5490. Cobubatha limbata.

Oribates limbatus, H. Edw. Papilio, i. p. 22 (1881); Smith, Cat. Noct. N. Am. p. 315.

Agrophila anœa, Druce, Biol. Centr.-Am., Het. ii. p. 491, pl. 94. f. 24 (1898).

♂, Head, thorax, and abdomen reddish ochreous irrorated with fuscous; palpi whitish and black; frons with lateral black spots; pectus, legs, and ventral surface of abdomen whitish, the tibiæ and tarsi banded with black; abdominal crests tipped with black. Fore wing ochreous suffused with rufous and slightly irrorated with black, the outer half of medial area suffused with blackish, the postmedial area tinged with fuscous; subbasal line indistinct, double, waved, from costa to submedian fold, some dark suffusion beyond it on costa; antemedial line indistinct, double, waved, inwardly oblique below the cell; a waved black medial line, inwardly oblique from subcostal nervure to inner margin; a slight pale curved discoidal striga defined on inner side by black and with black point beyond it; postmedial line double, excurved from below costa to vein 4, then incurved and waved, some pale points beyond it on costa; subterminal line dark and with dark suffusion before it on costal area, excurved below vein 7 and at middle; a terminal series of black striæ; cilia reddish mixed with fuscous and with whitish patch below apex. Hind wing orange tinged with red, the costal area suffused with fuscous towards apex; a terminal series of black striæ; the underside with the costal area whitish irrorated with rufous, a blackish patch at apex, traces of waved medial and postmedial lines from costa to discal fold.

Ab. 1. *anœa*. Fore wing with the terminal half darker.

Hab. U.S.A., Texas; Mexico, Mazatlan, 2 ♂, 1 ♀, Vera Cruz (*H. H. Smith*), 1 ♀ type *anœa*, Yucatan (*Gaumer*), 1 ♂; Guatemala, S. Geronimo (*Champion*), 1 ♂, Godman-Salvin Coll. *Exp.* 15–18 millim.

5491. Cobubatha orcidia.

Agrophila orcidia. Druce, Biol. Centr.-Am., Het. ii. p. 491, pl. 94. f. 26 (1898).

Head, thorax, and abdomen fuscous mixed with some grey; palpi white at base, the 2nd and 3rd joints white at tips; pectus and legs whitish, the tibiæ and tarsi banded with black. Fore wing cupreous red, the terminal half rather browner; a black mark at base of costa with a minute subbasal black striga beyond it; antemedial line black defined on inner side by silvery grey, oblique, interrupted; reniform a slight blackish spot defined by grey, round; a fine black medial line, oblique below the cell; postmedial line double, black

filled in with some silvery grey, oblique from costa to discal fold, then obliquely incurved; subterminal line silvery grey strongly defined on inner side by black except towards tornus and with some white points before it on costa, excurved below vein 7 and at middle and angled inwards in discal fold: a fine black terminal line; cilia black finely pencilled with grey. Hind wing reddish orange; a black discoidal point, the costal area suffused with black towards apex; cilia black at base, white at tips, the underside with the costal area whitish, irrorated and suffused with black on terminal half, a small black discoidal spot and diffused waved postmedial and subterminal lines except on inner area.

Hab. Mexico, Tabasco (*H. H. Smith*), 2 ♀ type, Guerrero (*H. H. Smith*), 1 ♂, Godman-Salvin Coll. *Exp.* 10–14 millim.

5492. Cobubatha flavofasciata. (Plate CLVIII. fig. 19.)

Tripudia flavofasciata, Grote, Can. Ent. ix. p. 70 (1877); Smith, Cat. Noct. N. Am. p. 314.
Oribates versutus, H. Edw. Papilio, i. p. 116 (1881).

♀. Head, thorax, and abdomen fuscous mixed with grey; palpi with the 2nd and 3rd joints tipped with white; fore tibiæ and the tarsi black ringed with white. Fore wing with the base black with irregular outer edge and subbasal patch of silvery scales on costa; antemedial area orange-yellow extending at costa to beyond the antemedial line which is black defined on inner side by silver, angled outwards below costa, then oblique, sinuous; terminal half dark reddish brown; reniform a silvery lunule; postmedial line indistinct, black defined on outer side by silver, excurved from costa to vein 5, then obliquely incurved and touching lower edge of reniform, a small orange spot beyond it on costa; subterminal line silvery, excurved below costa and at middle and angled inwards in discal fold; the apex tinged with cupreous red; a fine black terminal line; cilia greyish. Hind wing dark brown; the underside irrorated with whitish, a dark discoidal spot defined by whitish and black terminal line with small white marks before it at discal and submedian folds.

Hab. U.S.A., Alabama, 1 ♀ type, Texas, Colorado, New Mexico. *Exp.* 16 millim.

5493. Cobubatha luda.

Agrophila luda, Druce, Biol. Centr.-Am., Het. ii. p. 491, pl. 94. f. 25 (1898).

♀. Head, thorax, and abdomen fuscous brown mixed with some grey; pectus, legs, and ventral surface of abdomen white irrorated with brown, the fore tibiæ and the tarsi blackish ringed with white, the abdomen with white segmental lines, the basal crests ochreous white, the crest on 4th segment black. Fore wing with the basal

area black-brown irrorated with grey, the antemedial area brownish ochreous, the rest of wing rufous suffused in parts with black; two slight antemedial black striæ from costa; a curved black medial line slightly angled inwards in cell; an elliptical silvery purple discoidal spot with dark centre and defined by blackish on inner side; postmedial line double filled in with silvery purple, excurved from below costa to discal fold, then incurved and interrupted at submedian fold, some white points beyond it on costa; subterminal line silvery purple defined on each side by black suffusion, angled inwards and interrupted at discal and submedian folds; a fine black terminal line; cilia blackish finely pencilled with grey. Hind wing dark cupreous brown with a fine pale line at base of cilia. Underside of fore wing brown, the inner area white, ante- and postmedial ochreous white annuli on costa, the latter with a point beyond it and small spot towards apex; hind wing with the basal area irrorated with ochreous white, a large discoidal ochreous white annulus and subterminal series of small spots.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♀ type, Godman-Salvin Coll.; Argentina, Goya (*Perrens*), 1 ♀. *Exp.* 14–16 millim.

5494. **Cobubatha goyanensis**, n. sp. (Plate CLVIII. fig. 20.)

♂. Head, thorax, and abdomen black-brown tinged with grey; pectus, legs, and ventral surface of abdomen white irrorated with brown, the tibiæ and tarsi banded with brown. Fore wing yellowish suffused with rufous, the base black-brown tinged with grey, the costa with alternating black-brown and whitish streaks; postmedial line brown with rufous suffusion before it, obliquely downcurved from costa to vein 6, then oblique and slightly bent outwards to inner margin; subterminal line black, rather diffused on outer side, excurved below vein 7 and at middle and angled inwards in discal fold, defined on outer side by silvery scales; a rather punctiform black terminal line; cilia blackish mixed with grey. Hind wing fuscous brown with a rufous gloss; the underside whitish tinged with fuscous, the costal area yellowish tinged with rufous, the postmedial area with blackish suffusion from costa to vein 4, a blackish discoidal spot and postmedial line excurved from costa to vein 4, a black terminal line with some white before it.

Hab. Argentina, Goya Corrientes (*Perrens*), 1 ♂ type. *Exp.* 14 millim.

5495. **Cobubatha balteata.** (Plate CLVIII. fig. 21.)

Tripudia balteata, Smith, Pr. U.S. Nat. Mus. xxii. p. 489 (1900); Dyar Cat. Lep. N. Am. p. 212.

♂. Head, thorax, and abdomen grey thickly irrorated with brown tarsi brown ringed with white; abdomen with the crest on 4th segment black. Fore wing grey thickly irrorated with brown;

broad oblique pale brownish ochreous antemedial band extending to the medial line and on costa to just beyond it, edged with white; medial line pale brown and oblique towards costa, then black, inwardly oblique and sinuous; the end of cell and submedian interspace below it tinged with red-brown; a slight curved black discoidal stria; postmedial line black, double toward costa, oblique to discal fold, inwardly oblique to submedian fold and sinuous to inner margin; subterminal line grey, defined on inner side by reddish brown suffusion and short black streaks below costa and at middle, excurved below vein 7 and at middle, angled inwards at discal fold and below vein 3, then oblique to tornus; a punctiform black terminal line except towards tornus; cilia with a fine white line near tips. Hind wing pale reddish brown; a fine brown terminal line; cilia whitish at tips; the underside white irrorated with brown, a discoidal point, traces of a curved postmedial line and terminal series of slight lunules.

Hab. U.S.A., Arizona, Huachuca Mts., 1 ♂. *Exp.* 16 millim.

5496. Cobubatha gilda.

Eustrotia gilda, Druce, Biol. Centr.-Am., Het. i. p. 313, pl. 29. f. 11 (1889).

♂. Head, thorax, and abdomen grey thickly irrorated with brown; tarsi blackish ringed with white; abdomen with the crest on 4th segment black. Fore wing with the basal area grey thickly irrorated with brown; an oblique silvery grey band tinged with rufous from middle of costa to inner margin near base with the slight oblique rufous antemedial line on it; terminal half of wing red-brown, its inner edge defined by black from cell to inner margin; reniform fuscous defined by grey; postmedial line blackish defined on outer side by silvery grey, oblique from costa to discal fold, incurved below vein 5 to lower extremity of reniform, then again excurved, some slight white points beyond it on costa and a pale patch beyond the lower angle of cell; subterminal line grey defined on inner side by black patches below costa and at middle and strongly angled inwards in discal and submedian folds; a fine black terminal line defined on inner side by grey and slightly interrupted at middle; cilia with a fine white line near tips. Hind wing grey, the veins and terminal area suffused with brown; a fine brown terminal line; cilia brown at base, whitish at tips; the underside irrorated with brown except on inner area, a slight discoidal spot and terminal series of lunules.

Hab. Mexico, Tabasco, Teapa (*H. H. Smith*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 14 millim.

5497. Cobubatha bipars, n. sp. (Plate CLVIII. fig. 22.)

♂. Head, thorax, and abdomen red-brown slightly tinged with greyish; palpi, lower part of frons, pectus, and legs ochreous

tinged with brown, the fore tibiæ and the tarsi blackish ringed with white. Fore wing with the basal area ochreous slightly tinged with rufous; subbasal line double at costa, waved, from costa to vein 1, a blackish patch beyond it on costa and slight marks in and below cell; antemedial line double, minutely waved; the rest of wing dark red-brown with a greyish gloss; a rather diffused curved black medial line; postmedial line indistinctly double, bent outwards below costa, excurved beyond the cell, then incurved, the costa beyond it with slight pale points with black streaks between them; subterminal line slightly defined by blackish on inner side, excurved below vein 7 and at middle and angled inwards at discal fold; the terminal area with a golden gloss; a terminal series of black points. Hind wing cupreous brown; a fine black terminal line; the underside bluish white thickly irrorated with brown, a blackish discoidal spot, sinuous postmedial line, traces of subterminal line and terminal series of black points.

Hab. Argentina, Tucuman, 1 ♂ type. *Exp.* 16 millim.

5498. **Cobubatha semipallida**, n. sp. (Plate CLVIII. fig. 23.)

♂. Head and tegulæ black-brown slightly mixed with ochreous; thorax pale olive ochreous; pectus and legs ochreous white, the tibiæ and tarsi banded with blackish; abdomen brown mixed with greyish, the crest on 4th segment black. Fore wing with the basal half pale olive ochreous, the terminal half chocolate red-brown, and with a silvery gloss; subbasal line represented by a dark striga from costa with a brown patch beyond it on costa; antemedial line with dark striga from costa, then very faint, inwardly oblique and slightly sinuous; medial line defining the inner edge of the chocolate area, excurved to median nervure, then slightly sinuous; reniform silvery grey faintly defined by blackish, elliptical; postmedial line indistinctly double filled in with silvery grey, bent outwards below costa, excurved to vein 4, then incurved, some white points beyond it on costa; subterminal line silvery grey, defined on inner side by minute black streaks at middle, angled inwards below costa and in discal fold; some cupreous red at apex; a terminal series of black striæ slightly defined on inner side by whitish; cilia with a fine whitish line near tips. Hind wing cupreous brown, paler towards base; cilia whitish at tips; the underside blue-grey thickly irrorated with brown, a dark discoidal spot, traces of postmedial line and terminal series of black striæ.

Hab. Dominica, Point Michell, 1 ♂ type. *Exp.* 12 millim.

5499. **Cobubatha luxuriosa.** (Plate CLVIII. fig. 24.)

Tripudia luxuriosa, Smith, Pr. U.S. Nat. Mus. xxii. p. 490 (1900); Dyar, Cat. Lep. N. Am. p. 212.

Head and thorax pale reddish brown mixed with whitish; palpi whitish towards tips; lower part of frons whitish; pectus and legs

whitish tinged with brown; fore tibiæ and the tarsi black ringed with white; abdomen grey suffused with brown. Fore wing with the basal area grey-brown, the rest of wing red-brown, some silvery blue suffusion in parts; subbasal line indistinctly double filled in with yellowish, the outer line black below the cell, dentate, from costa to vein 1; antemedial line double, filled in with yellow and silvery blue, the outer line black, slightly waved, excurved in submedian interspace; orbicular a small triangular yellow spot conjoined to the antemedial line and defined by black on outer side; reniform a silvery blue mark defined by black on inner side; postmedial line indistinctly double filled in with silvery blue, the inner line black below the cell, oblique from costa to vein 6, inwardly oblique to submedian fold where it is angled inwards, then slightly sinuous, some white points beyond it on costa; subterminal line formed of silvery lunules defined on inner side by black marks towards costa and at middle; some cupreous red at apex; a fine black terminal line slightly defined on inner side by white; cilia white with blackish patches at apex, middle, and tornus. Hind wing cupreous red-brown, the cilia white at tips; the underside white thickly irrorated with brown, a dark discoidal spot, postmedial line excurved at middle, traces of diffused subterminal line and fine punctiform black terminal line with slight white marks before it.

Hab. U.S.A., Arizona, Huachuca Mts., 3 ♂, 1 ♀; Mexico, Sonora (*Morrison*), 1 ♀. *Exp.* 16 millim.

5500. **Cobubatha subterminata**, n. sp. (Plate CLVIII. fig. 25.)

♀. Head, thorax, and abdomen reddish brown mixed with whitish; pectus and legs white tinged with brown, the fore tibiæ and the tarsi black ringed with white. Fore wing ochreous irrorated with brown, the terminal half rather browner tinged with grey; subbasal line slight, from costa to submedian fold; antemedial line indistinct, double, minutely waved, excurved in submedian interspace; a distinct medial red-brown shade; the reniform represented by a small brown spot; postmedial line indistinct, double, strongly excurved beyond the cell and oblique from vein 4 to inner margin near tornus, some white points beyond it on costa; subterminal line represented by three black points towards costa and three confluent points at middle; a fine black terminal line defined by white on inner side and slightly interrupted at middle; cilia whitish at tips. Hind wing greyish brown with a cupreous tinge; cilia whitish; the underside whitish irrorated with brown, a small discoidal spot and traces of curved postmedial line.

Hab. Mexico, Presidio (*Forrer*), 1 ♀, Godman-Salvin Coll.; Colombia, Sta. Marta (*Bouchard*), 1 ♀ type. *Exp.* 16 millim.

5501. **Cobubatha umbrifera**, n. sp. (Plate CLVIII. fig. 26.)

♀. Head, thorax, and abdomen brown mixed with grey; palpi, pectus, legs, and ventral surface of abdomen white irrorated with

brown, the fore tibiæ and the tarsi blackish ringed with white. Fore wing brownish grey with slight dark irroration; subbasal line faint, double filled in with silvery grey, angled inwards in cell and ending at vein 1; antemedial line faint, double filled in with silvery grey, waved; orbicular a slight whitish mark defined on outer side by an oblique black striga; reniform a slight black annulus on a silvery grey patch; postmedial line double, filled in with silvery grey except beyond the cell, excurved from below costa to discal fold, then bent inwards to lower angle of cell and minutely waved to inner margin, some white points beyond it on costa: subterminal line silvery grey strongly defined on inner side by black suffusion from costa to vein 2, angled inwards at discal fold and excurved at middle, terminal area rufous except towards tornus; a terminal series of small black lunules defined on inner side by a fine waved white line; cilia white mixed with brown. Hind wing dark cupreous brown, the cilia white at tips; the underside grey irrorated with fuscous, a slight discoidal spot and traces of diffused curved postmedial and subterminal lines.

Hab. Paraguay, Sapucay (*Foster*), 1 ♀ type. *Exp.* 18 millim.

5502. Cobubatha catada.

Eustrotia catada, Druce, Biol. Centr.-Am., Het. i. p. 313, pl. 29. f. 13 (1889).

♀. Head and thorax dark cupreous brown mixed with silvery purple; palpi, pectus, and legs white mixed with brown, the fore tibiæ and the tarsi black-brown ringed with white; abdomen fuscous brown mixed with some white and with white segmental lines, the crests blackish, the ventral surface white irrorated with brown. Fore wing dark cupreous brown irrorated with silvery purple; subbasal line silvery purple, sinuous, from costa to submedian fold; antemedial line diffused, silvery purple, waved; orbicular a silvery purple mark, its outer edge slightly defined by black; reniform represented by a curved black striga with a silvery purple patch beyond it in the sinus of the postmedial line, which is black defined on outer side by silvery purple, double towards costa and with some silvery purple beyond it, bent outwards below costa, incurved and slightly waved below discal fold, some white points beyond it on costa and a silvery purple line arising at discal fold, incurved to vein 2, then excurved to tornus; subterminal line silvery purple defined on inner side by slight black marks, angled inwards at discal fold, then excurved and ending at vein 2; the terminal area rufous except towards tornus; a fine black terminal line; cilia finely striated with silvery purple and with some white at tips. Hind wing uniform dark cupreous brown, the cilia whitish at tips; the underside whitish irrorated with black-brown, the terminal area suffused with fuscous, a black discoidal spot and minutely waved postmedial line.

Hab. Mexico, Guerrero (*H. H. Smith*), 3 ♀ type, Godman-Salvin Coll. *Exp.* 18 millim.

Genus **MELAMERA**, nov.

Type, *M. velutina*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and moderately scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male minutely ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the mesothorax with slight paired crests, the metathorax with depressed crest; tibiæ slightly fringed with hair; abdomen with dorsal crests on 1st four segments, the crest on 2nd segment large. Fore wing with the apex rounded, the termen slightly excurved at middle and excised towards tornus, hardly crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5503. **Melamera velutina**, n. sp.

Head and thorax bluish grey mixed with black-brown; palpi black, white at base, at extremity of 2nd joint and at base and extremity of 3rd joint; vertex of head with black bar; tegulæ with broad black-brown band; fore tibiæ and the tarsi black-brown ringed with white; abdomen reddish brown mixed with grey, the crests black-brown. Fore wing pale rufous with a large rather quadrate black-brown patch on inner medial area defined by whitish and extending into the cell where its upper edge is slightly angled at middle and before the discocellulars; some black-brown suffusion at base of inner area; slight subbasal and antemedial white striæ from costa defined on each side by blackish; a medial black strigu

Fig. 94.—*Melamera velutina*. ♂. $\frac{3}{2}$.

from costa; a black discoidal point defined below by a minute Y shaped whitish mark indenting the black area; postmedial line with slight white mark at costa, then pale slightly defined on outer side by brown, obliquely excurved and slightly incurved below submedian fold, a black-brown patch beyond it on costal area with some white points on costa; subterminal line whitish defined on inner side by brown, faintly except towards costa, excurved below vein 7, excurved and minutely waved at middle, then incurved, a small subapical black-brown spot beyond it; a fine minutely waved terminal black line slightly defined on inner side by whitish; cilia whitish at apex. Hind wing dark cupreous brown; the underside greyish suffused with brown, a blackish discoidal spot, indistinct sinuous postmedial line, and waved black terminal line.

Hab. Colombia, Sta. Marta (*Bouchard*), 2 ♂ type, Minca (*H. H. Smith*), 1 ♀. *Exp.* 22 millim.

Genus ABACENA.

Abacena, Wlk. xxxiv. 1270 (1865) ..... Type *discalis*.

Proboscis fully developed: palpi obliquely porrect, the 2nd joint extending about the length of head and fringed with rather long hair above towards extremity, the 3rd short; frons smooth with tuft of hair above; eyes large, round; antennæ of female ciliated; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the black-brown area extending to base on inner half ..... *discalis*.
B. Fore wing with the black-brown area not extending to base... *accincta*.

5504. Abacena discalis.

Abacena discalis, Wlk. xxxiv. 1270 (1865).
Rivula palliceps, Feld. Reis. Nov. pl. 120. f. 2 (1874).

♀. Head, tegulæ, and prothorax ochreous tinged with rufous, the rest of thorax very dark red-brown; abdomen dark red-brown with a little ochreous white at base; pectus, legs, and ventral surface of abdomen ochreous tinged with rufous. Fore wing with the costal area ochreous tinged with rufous, the rest of wing to postmedial line very dark red-brown with slightly sinuous upper edge; the terminal area ochreous suffused with rufous; antemedial

Fig. 95.—*Abacena discalis*, ♀. $\frac{3}{2}$.

line represented by a dark striga from costa; postmedial line whitish, sinuous; subterminal line represented by a series of obscure dark spots, excurved below vein 7 and at middle and incurved below vein 3; an indistinct oblique dark shade from apex; a black terminal line. Hind wing dark reddish brown, the cilia ochreous white; the underside greyish suffused with brown, a dark discoidal spot and indistinct curved postmedial line.

Hab. Brazil, Amazons, Ega (*Bates*), 1 ♀ type. *Exp.* 24 millim.

5505. Abacena accincta.

Thalpochares accincta, Feld. Reis. Nov. pl. 108. f. 15 (1874).

Head and tegulæ pale ochreous brown; thorax fuscous brown with a leaden gloss; abdomen fuscous brown; pectus, legs, and

ventral surface of abdomen whitish tinged with brown. Fore wing with the basal area and costal area to beyond middle grey with a silvery blue gloss; the medial area black-brown extending into the cell, where its upper edge is excised with a small white lunule in it and its outer extremity produced upwards as a point to subcostal nervure, edged on inner side by the fine black antemedial line which is slightly defined on inner side by white and very slightly angled outwards below costa, then oblique, edged on outer side by the fine black postmedial line which is slightly defined on outer side by white, excurved towards costa, incurved at lower angle of cell, then erect, some slight white points beyond it on costa; terminal area yellowish brown with fuscous and whitish suffusion before the hardly traceable subterminal line which is obliquely excurved below costa; a black terminal line; cilia blackish. Hind wing uniform fuscous brown; the underside leaden grey, the costal area tinged with brown, a fine black terminal line except towards tornus.

Hab. Br. Guiana, Potaro R. (*Kaye*), 1 ♀; Brazil, Amazons (*Bates*), type† ♂ in Coll. Rothschild. *Exp.* 18 millim.

Genus **MICROPHÆA**, nov.

Type, *M. nyctichroa*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head and moderately scaled, the 3rd minute; frons smooth; eyes large, round; antennæ of male with bristles and cilia; thorax clothed almost entirely with scales and without crests; tibiæ moderately fringed with hair; abdomen without crests. Fore wing with the apex rectangular, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole, 10 anastomosing with 11. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the postmedial line excurved beyond the cell and in submedian interspace ..... *nyctichroa*.
B. Fore wing with the postmedial line strongly excurved from costa to vein 4, then incurved ..... *griseata*.

5506. **Microphæa nyctichroa**, n. sp.

♀. Head, thorax, and abdomen dark purplish brown; pectus,

Fig. 96.—*Microphæa nyctichroa*, ♀. ¾.

legs, and ventral surface of abdomen with some whitish mixed. Fore wing purple with slight dark irroration, the postmedial area

paler; antemedial line indistinct, dark, slightly excurved below costa and incurved at vein 1; white points defined by a few black scales in middle of cell and on discocellulars; postmedial line blackish, angled outwards at vein 6 and excurved in submedian interspace; a terminal series of black striæ with whitish points between them; cilia fuscous. Hind wing dark brown; traces of a pale postmedial line on inner area; a slight pale spot on termen in submedian fold; a fine black terminal line; cilia fuscous with a fine pale line at base; the underside brownish white irrorated with brown, the terminal area suffused with brown, a diffused brown postmedial line.

Hab. Panama, La Chorrera (*Dolby-Tyler*), 2 ♀ type. *Exp.* 18 millim.

5507. **Microphæa griseata**, n. sp. (Plate CLV. fig. 32.)

♂. Head and tegulæ rufous; thorax and abdomen greyish mixed with purplish brown. Fore wing greyish thickly irrorated with purplish brown; antemedial line dark, angled inwards on subcostal nervure and outwards on median nervure and above inner margin; a discoidal spot formed of blackish points; postmedial line dark brown defined on outer side by greyish, oblique to vein 6, excurved to vein 4, then slightly incurved; a fine red-brown terminal line slightly defined on inner side by greyish; conjoined small dark brown spots on cilia at apex and on termen just below apex. Hind wing greyish suffused and irrorated with purplish brown; a slight discoidal bar; a slightly curved red-brown postmedial line defined on outer side by greyish; a red-brown terminal line defined on inner side by grey; the underside with more prominent discoidal lunule, the postmedial line excurved at middle.

Hab. Brazil, Espiritu Santo, 1 ♂ type. *Exp.* 24 millim.

Genus **TASEOPTERYX.**

	Type.
Taseopteryx, Butl. Trans. Ent. Soc. 1883, p. 63	*sericea.*

Proboscis fully developed; palpi porrect, extending about the length of head, triangularly scaled, the 3rd joint hidden in hair; frons smooth; eyes large, round; antennæ of male bipectinate with moderate branches to apex; thorax clothed almost entirely with scales, the mesothorax with slight paired crests, the metathorax with depressed crest; tibiæ smoothly scaled; abdomen with dorsal crest at base only. Fore wing with the apex somewhat produced and acute, the termen obliquely curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 shortly stalked or from cell; 5 nearly fully developed from well above angle; 6, 7 shortly stalked; 8 anastomosing with the cell to near middle.

5508. **Taseopteryx sericea.**

Taseopteryx sericea, Butl. Trans. Ent. Soc. 1883, p. 64, pl. xi. f. 3.

Head, thorax, and abdomen whitish mixed with ochreous; palpi brownish at sides. Fore wing whitish tinged with ochreous and in

parts with rufous, the costal edge brownish; the basal area with some brownish suffusion in and just below cell and a slight black streak in submedian fold; an obliquely downcurved ochreous white fascia slightly defined by black from subcostal nervure before middle to postmedial line in submedian interspace, followed by a triangular patch of brown suffusion in, below, and beyond the cell with the broad diffused yellowish-white reniform on it; the area

Fig. 97.—*Taseopteryx sericea*, ♂. ½.

from upper angle of cell to costa towards apex whitish with dark streaks on the veins and with some rufous suffusion beyond it; postmedial line double, black filled in with whitish, obliquely incurved from vein 6 to submedian fold where it is slightly bent outwards; an oblique whitish streak from apex; the interspaces of terminal area with slight whitish streaks, their basal parts slightly defined above and below by fuscous scales; some blackish points on termen above tornus; cilia chequered brown and whitish. Hind wing whitish suffused with brown; a fine brown terminal line; the underside ochreous white irrorated with brown, a black point at upper angle of cell and irregularly sinuous brown postmedial line.

Hab. Chili (*Edmonds*), 2 ♂ type, Valparaiso (*J. J. Walker*), 4 ♀. *Exp.* 28 millim.

Genus **TROGOTORNA**, nov.

Type, *T. persecta*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching vertex of head and moderately scaled, the 3rd moderate; frons with truncate conical prominence with raised edges, its lower part filled in with scales; eyes large, round; antennæ of female minutely ciliated; thorax clothed chiefly with scales, the prothorax with small spreading crest, the metathorax without crest; tibiæ moderately fringed with hair; abdomen with dorsal crest at base only and lateral tufts of scales from above the stigmata. Fore wing rather long and narrow, the apex rounded, the termen strongly excised towards tornus; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5509. **Trogotorna persecta**, n. sp.

♀. Head reddish brown mixed with some whitish: thorax white mixed with some reddish brown; tarsi dark brown ringed

with white; abdomen brown with faint whitish segmental bands. Fore wing with the costal area black-brown slightly tinged with grey and with numerous slight pale striæ from the costa, defined below by a white fascia bent upwards to termen below apex, the inner area whitish tinged with pink and irrorated with red-brown, the inner and terminal areas with slight dark streaks on the veins; a slight antemedial line arising from middle of submedian fold, very oblique to vein 1 and angled outwards above inner margin;

Fig. 98.—*Tregotorna persecta*, ♀. ½.

an indistinct oblique diffused medial dark band from cell to inner margin; traces of an oblique sinuous postmedial line from discal fold to inner margin with slight dark points on the veins; cilia intersected by whitish streaks on costal half. Hind wing whitish suffused with red-brown especially on terminal area; a slight dark discoidal bar; cilia whitish tinged with rufous; the underside white irrorated with brown, a dark discoidal bar and postmedial line oblique towards costa, incurved and sinuous below vein 3.

Ab. 1. Much more uniform reddish brown with a grey tinge; fore wing with the costal area paler, the inner area browner and no white fascia.

Hab. Paraguay, Sapucay (*Foster*), 3 ♀ type. *Exp.* 26 millim.

Genus **DROBETA**.

Type.

Drobeta, Wlk. xv. 1755 (1858) ..... *exscendens.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd short; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed with hair and hair-like scales, the prothorax without crests, the mesothorax with slight paired crests, the metathorax with spreading crest; tibiæ moderately fringed with hair; abdomen with dorsal crests on basal segments. Fore wing with the apex rounded, the termen excurved at middle and excised towards tornus; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the postmedial black patch extending to near inner margin.
   a. Fore wing with the postmedial black patch rounded ..... *exscendens.*
   b. Fore wing with the outer edge of the postmedial black patch strongly incurved below vein 4..... *melagonia.*

B. Fore wing with the postmedial black patch not extending below vein 4 ..... [illegible].
C. Fore wing without postmedial black patch.
a. Fore wing with dark centre to reniform ..... *perplexa*.
b. Fore wing without dark centre to reniform ..... *phæobasis*.

5510. Drobeta exscendens.

Drobeta exscendens, Wlk. xv. 1755 (1858).

♀. Head and thorax ochreous tinged with rufous; tarsi brown with pale rings; abdomen grey-brown, the crests yellowish, the ventral surface whitish. Fore wing whitish suffused with rufous and yellowish; subbasal line represented by a slight blackish streak from costa; antemedial line slight, blackish defined on inner side by whitish, irregularly sinuous, erect; orbicular with whitish annulus, inwardly oblique elliptical, a large rounded black patch beyond it extending from just below costa to just above inner margin and to postmedial line, which is double at costa, slightly bent outwards below costa, then defined by whitish on outer side

Fig. 99.—*Drobeta exscendens*, ♀. ½.

and minutely dentate, excurved to vein 4, then incurved; a faint pale waved subterminal line from costa to vein 4 defined on inner side by dentate black marks; a terminal series of black lunules except at apex, defined on inner side by whitish; cilia chequered rufous and black. Hind wing dark brown, pale at base, the cilia yellow; the underside whitish tinged with yellow, a slight discoidal lunule and indistinct curved crenulate postmedial line.

Hab. Venezuela, 1 ♀ type. *Exp.* 34 millim.

5511. Drobeta melagonia, n. sp. (Plate CLVIII. fig. 27.)

♀. Head and thorax brownish ochreous, the tegulæ and patagia with some brown; fore and mid tarsi with blackish bands; abdomen brownish ochreous. Fore wing whitish suffused with red-brown and purplish grey and slightly irrorated with black, the outer half of medial area deep black except towards inner margin; traces of a blackish subbasal line from costa to submedian fold; antemedial line black, slightly angled inwards at median nervure, then oblique sinuous; orbicular and reniform with whitish annuli, small, the former oblique wedge-shaped, the latter conjoined to a small oblique whitish spot below middle of cell; medial line

represented by a blackish striga from costa and oblique line from vein 1 to inner margin; postmedial line double at costa and on inner half, defined by white on outer side forming a diffused patch below vein 4, slightly bent outwards below costa, oblique to vein 6 and very strongly incurved below vein 4, some pale points beyond it on costa; subterminal line whitish, dentate, angled inwards at discal fold and oblique below vein 4, defined on inner side by slight somewhat dentate black marks and with dentate black mark beyond it at discal fold; a terminal series of black lunules. Hind wing black-brown with a slight pale mark at tornus with blackish points above and below it; cilia ochreous; the underside whitish tinged with rufous and irrorated with brown, traces of a discoidal lunule and curved postmedial line.

Hab. Panama, La Cherrera (*Dolby-Tyler*), 1 ♀ type; Trinidad (*Hart*), 1 ♀. *Exp.* 30 millim.

5512. **Drobeta delectans.** (Plate CLVIII. fig. 28.)

Dianthœcia delectans, Wlk. xi. 505 (1857).

♂. Head and thorax ochreous grey mixed with fuscous; tarsi banded with blackish; abdomen ochreous, the crests blackish, the extremity tinged with rufous. Fore wing brownish ochreous irrorated with black, the cell on medial area and the postmedial area except towards costa suffused with leaden fuscous, an oblique patch of black suffusion before the postmedial line from costa to vein 4; subbasal line represented by double brown striæ from costa; antemedial line double, the inner line indistinct, the outer black, angled inwards below the cell, then excurved, some blackish suffusion before it above inner margin; orbicular and reniform absent; a black medial line, excurved at middle, then incurved; postmedial line double, slightly bent outwards below costa, oblique to vein 6, then dentate, incurved below vein 4; subterminal line very indistinct, pale, dentate with a dentate black mark beyond it at discal fold; a terminal series of black striæ. Hind wing brown, darker towards termen; a pale bar at tornus; cilia ochreous brown; the underside whitish irrorated with brown, a slight discoidal lunule and curved crenulate postmedial line.

Hab. Brazil, Amazons, Santarem (*Bates*), 1 ♂. *Exp.* 30 millim.

*5513. **Drobeta perplexa.** (Plate CLVIII. fig. 29.)

Angitia perplexa, Schaus, Trans. Am. Ent. Soc. xxx. p. 165 (1904).

♂. Head and thorax ochreous white tinged with rufous; abdomen brownish; pectus, legs, and ventral surface of abdomen whitish. Fore wing red-brown mixed with some ochreous, the base ochreous except towards inner margin; a rather diffused indistinct dark subbasal line from costa to vein 1; antemedial line black, strong, slightly excurved below costa, then inwardly oblique;

orbicular and reniform with very faint yellowish annuli, the former inwardly oblique, the latter somewhat constricted at middle; a small oblique dark mark filled in with ochreous on costa before the postmedial line, which is brown and very oblique from costa to vein 6, then indistinct, pale, minutely waved, incurved below vein 4, an oblique pale patch beyond it from costa; subterminal line indistinct, pale, minutely waved, excurved below vein 7 and at middle; a terminal series of black points and striga above tornus slightly defined on inner side by ochreous; cilia brown and ochreous. Hind wing ochreous suffused with red-brown, the terminal area darker; cilia chequered red-brown and ochreous; the underside ochreous white slightly tinged with brown, a dark discoidal lunule and fine terminal line.

Hab. Venezuela, Aroa, type † ♂ in U.S. Nat. Mus. *Exp.* 26 millim.

5514. **Drobeta phæobasis.** n. sp. (Plate CLVIII. fig. 30.)

♀. Head and thorax ochreous mixed with rufous and some brown; pectus and legs pale, the tarsi brown with pale rings; abdomen fuscous brown, the ventral surface pale. Fore wing ochreous suffused in parts with rufous and irrorated with some blackish scales except on disk; the basal inner area fuscous, expanding triangularly towards costa before the obliquely incurved black antemedial line; orbicular and reniform pale brownish with very indistinct pale annuli, the former small, brown, the latter rather narrow and oblique; some blackish striæ from medial part of costa; postmedial line indistinct, pale, oblique from costa to vein 6, then minutely dentate and excurved to vein 4 near subterminal line, then strongly incurved; subterminal line pale, defined on inner side by somewhat dentate dark marks towards costa and by blackish suffusion towards inner margin, waved, angled outwards to near termen at veins 7, 6, 4, 3, a wedge-shaped black mark beyond it at discal fold; a terminal series of black striæ; cilia ochreous and fuscous brown intersected with whitish at vein 2. Hind wing dark cupreous brown; the cilia yellowish at base, chequered white and brown at tips; the underside ochreous white tinged with rufous, a brown discoidal lunule, minutely waved curved postmedial line, and dark mark above tornus.

Hab. W. Colombia, El Credo, 1 ♀ type. *Exp.* 28 millim.

Genus **PARANGITIA**, nov.

Type, *P. cervina*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd short; frons smooth; eyes large, round; antennæ of male with fasciculate cilia; thorax clothed with hair and scales mixed, the prothorax without crest, the mesothorax with slight paired crests, the metathorax with spreading crest; tibiæ moderately fringed with hair; abdomen long with dorsal crests on basal segments. Fore wing with the apex rectangular, the termen oblique towards tornus, not crenulate; veins

3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Hind tibiæ of male and 1st joint of tarsi with fringe of long hair above.

A. Fore wing deep velvety red-brown ..... *veluta.*
B. Fore wing red-brown slightly irrorated with black ..... *rufa.*
C. Fore wing greyish fawn colour thickly irrorated with dark brown.
a. Fore wing with the antemedial line angled outwards above inner margin, the postmedial line strongly bent outwards from below costa to vein 4 .... *cervina.*
b. Fore wing with the antemedial line not angled outwards above inner margin, the postmedial line slightly bent outwards from below costa to vein 4 ..... *nephelistis.*

*5515. Parangitia veluta. (Plate CLVIII. fig. 31.)

Parangitia veluta, Druce, A. M. N. H. (8) iii. p. 463 (1909).

♂. Head and tegulæ red-brown mixed with some yellowish and white; patagia red-brown; vertex of thorax white mixed with yellowish and some dark scales; abdomen reddish ochreous, the basal crest with some white and dark scales; pectus and legs rufous, the tarsi with pale rings. Fore wing very dark velvety red-brown, the costa irrorated with rufous to postmedial line, the inner margin rufous; traces of a waved dark subbasal line from costa to submedian fold and of a waved antemedial line; a white point in middle of cell; reniform defined by some white scales, narrow, oblique, constricted at middle; a faint dark striga from middle of costa; postmedial line indistinct, dark, minutely dentate, very strongly excurved to near termen, an oblique band of yellowish suffusion beyond it towards costa and some white points on costa; a terminal series of black striæ slightly defined on inner side by rufous; cilia rufous mixed with some dark scales and some white scales towards apex. Hind wing dark cupreous red-brown, the cilia with yellowish mixed; the underside with some whitish irroration.

Hab. Peru, Carabaya (*Ockenden*), type † ♂ in Coll. Druce. *Exp.* 34 millim.

*5516. Parangitia rufa. (Plate CLVIII. fig. 32.)

Parangitia rufa, Druce, A. M. N. H. (8) iii. p. 463 (1909).

♂. Head and thorax red-brown mixed with some black; abdomen red-brown with the crests black. Fore wing red-brown slightly irrorated with black and suffused in parts with fuscous; subbasal line faint, double, curved inwards to base of median

nervure; antemedial line indistinct, double, waved, filled in with greyish towards inner margin, to which it is bent inwards; a yellowish point in middle of cell; reniform with yellowish annulus, figure-of-eight-shaped; an indistinct medial line, excurved to lower angle of cell, then oblique, minutely dentate; postmedial line indistinct, double, minutely dentate, excurved to vein 4, then oblique, filled in with greyish towards inner margin; an indistinct greyish dentate subterminal line, angled outwards at veins 7 and 4; cilia chequered rufous and fuscous. Hind wing dark cupreous red-brown, the cilia intersected with yellowish, the underside with some whitish irroration, traces of a sinuous medial line and of a curved minutely waved postmedial line.

Hab. Peru, S. Domingo (*Ockenden*), type † ♂ in Coll. Druce. *Exp.* 38 millim.

5517. Parangitia cervina, n. sp.

Head and thorax fawn colour tinged with grey and mixed with some dark brown; fore tarsi banded with brown, the fringe of hair on hind tibiæ of male black above; abdomen greyish tinged with red-brown, Fore wing fawn colour tinged with greyish and irrorated with dark brown; antemedial line indistinctly double filled in with greyish, oblique, waved, angled outwards above inner margin; orbicular hardly traceable, the reniform represented by

Fig. 100.—*Parangitia cervina*, ♂. ½.

two blackish points defined by whitish; an indistinct waved blackish medial line angled outwards to lower angle of cell; postmedial line double, blackish filled in with greyish, slightly bent outwards below costa, then minutely dentate, oblique to vein 6 and inwardly oblique below vein 4; subterminal line hardly traceable, waved; the apex somewhat darker; a terminal series of black striæ. Hind wing dark cupreous red-brown, the cilia white at tips. Underside of male with the fore wing black-brown, the costal area rufous, the termen greyish; hind wing grey-white with a faint rufous tinge, an oblique brown medial line; female similar but the colours of fore wing less contrasting, the hind wing with faint curved crenulate postmedial line.

Hab. Br. Guiana (*Rodway*), 1 ♂, 1 ♀ type, Rockstone (*Kaye*), 1 ♀. *Exp.* 28–30 millim.

5518. **Parangitia nephelistis**, n. sp. (Plate CLIX. fig. 1.)

♀. Head and thorax grey tinged with rufous and mixed with some fuscous; abdomen grey obscurely banded with fuscous dorsally. Fore wing grey tinged with rufous and thickly irrorated and suffused with fuscous black; antemedial line rather diffused, black, oblique and slightly sinuous; orbicular hardly traceable, small, round, defined by whitish; reniform with whitish annulus, constricted at middle and somewhat angled inwards on median nervure; medial line indistinct, oblique from costa to lower angle of cell, then sinuous; postmedial line black, double towards costa, oblique to vein 6, angled inwards at discal fold and incurved below vein 4; traces of a pale sinuous subterminal line defined on each side by slight dark marks on costal half; some dark points on termen and a slight whitish patch above tornus. Hind wing cupreous red-brown; the underside whitish, the terminal area suffused with brown, a dark discoidal lunule and curved postmedial line.

Hab. Brazil, Amazons, Para (*Schulz*), 1 ♀ type. *Exp.* 26 millim.

Sect. 11. Hind tibiæ of male with tuft of long hair on inner side between medial and terminal spurs.

*5519. Parangitia carrioni.

Callopistria carrioni, Dogn. Le Nat. (2) iv. p. 155 (1890).

♂. Head and thorax ochreous tinged with rufous, the extremity of patagia dark brown, the metathorax whitish; palpi red-brown; tarsi banded with blackish; abdomen ochreous tinged with rufous. Fore wing rufous, the basal area suffused with black, the medial area to below the cell and the terminal area suffused with red-brown; antemedial line rather diffused, black, expanding into a

Fig. 101.—*Parangitia carrioni*, ♂. ½.

spot at costa, incurved from cell to above inner margin; traces of a medial line excurved in submedian interspace; reniform faintly defined by brown, small; traces of a postmedial line excurved to vein 4, then incurved; a triangular blackish patch on postmedial part of costal area with yellow point on costa; subterminal line whitish, inwardly oblique to above vein 7, angled outwards to near

termen at vein 6, angled inwards at discal fold and outwards to near termen at vein 4, then minutely waved, the area beyond it dark red-brown. Hind wing red-brown, the cilia rufous; the underside red-brown irrorated with grey-white, the basal and inner areas whitish.

Hab. Ecuador, Palanda, type † ♂ in Coll. Dognin. *Exp.* 34 millim.

Sect. III. Hind tibiæ of male and 1st joint of tarsi normal.

A. Fore wing with patches of green on basal area..... *virescens.*
B. Fore wing without patches of green on basal area.
a. Fore wing with black spot between orbicular and reniform ..... *cana.*
b. Fore wing without black spot between orbicular and reniform.
*a*¹. Fore wing with oblique brown shade below apical area ..... *avissa.*
*b*¹. Fore wing with dark shade on whole apical area..... *subrufescens.*

*5520. Parangitia virescens. (Plate CLIX. fig. 2.)

Parangitia virescens, Druce, A. M. N. H. (8) iii. p. 464 (1909).

♀. Head, thorax, and abdomen red-brown mixed with green; palpi in front, pectus and ventral surface of abdomen whitish; legs red-brown, the tarsi dark brown ringed with white. Fore wing red-brown, the basal half largely mixed with green and irrorated with some black, the terminal area mostly green from vein 4 to tornus, the postmedial and apical half of terminal area with rufous mixed; subbasal line slight, blackish, curved, from costa to submedian fold, with slight black mark beyond it on median nervure; antemedial line indistinct, waved, oblique; orbicular with green annulus, rather V-shaped and connected with a rather U-shaped green mark defined by blackish below the cell; reniform with green annulus to upper part, its lower part defined by white points on inner and outer sides, constricted at middle; a blackish bar from middle of costa; postmedial line strong, black, oblique and slightly sinuous from costa to vein 4, with some rufous before and beyond it, then very indistinct, strongly incurved and with some rufous on it below vein 2, some pale points beyond it on costa; subterminal line indistinct and pale from costa to vein 5, angled outwards at veins 7, 6 and inwards in discal fold where there is a black patch beyond it, then represented by the dentate dark inner edge of the green area; a terminal series of small black lunules slightly defined on inner side by whitish; cilia red-brown with series of whitish points. Hind wing cupreous red-brown, the cilia with punctiform whitish line at base; the underside whitish suffused and irrorated with red-brown, diffused curved medial and postmedial lines.

Hab. Peru, S. Domingo (*Ockenden*), type † ♀ in Coll. Druce. *Exp.* 32 millim.

*5521. Parangitia cana. (Plate CLIX. fig. 3.)

Parangilia cana, Druce, A. M. N. H. (8) iii. p. 464 (1909).

♀. Head and thorax whitish tinged with rufous and mixed with some dark brown; pectus, legs, and abdomen whitish tinged with rufous, the tarsi brownish with pale rings. Fore wing pale rufous irrorated with dark brown, the medial area and postmedial area, except towards costa, suffused with grey-white; an indistinct blackish subbasal line from costa to median nervure; traces of an oblique antemedial line, slightly angled outwards in submedian fold; orbicular and reniform with whitish annuli, the former round, connected by a curved black mark below the cell and with quadrate black spot between them; a medial dark striga from costa and incurved line from the black mark below the cell to inner margin; a blackish patch beyond the reniform before the postmedial line, which is double, excurved and minutely dentate from costa to vein 4, then incurved and bent outwards to inner margin, some whitish points beyond it on costa; subterminal line whitish, incurved below costa, angled inwards at discal fold where there is a blackish patch beyond it, incurved and minutely waved below vein 3; a terminal series of blackish striæ; cilia chequered rufous and blackish. Hind wing cupreous brown, the terminal area darker; cilia with pale rufous line at base; the underside whitish tinged with rufous and irrorated with brown, a brownish bar from middle of costa and curved minutely waved postmedial line.

Hab. Peru, S. Domingo (*Ockenden*), type † ♀ in Coll. Druce. *Exp.* 34 millim.

5522. Parangitia grisescens, n. sp.

Drobeta delectans, Druce, Biol. Centr.-Am., Het. i. p. 310 (nec Wlk.).

♂. Head and thorax whitish tinged with rufous, the latter irrorated with black; tegulæ with black medial line; tarsi banded with brown; abdomen whitish suffused with rufous. Fore wing

Fig. 102.—*Parangitia grisescens*, ♂. ⅔.

whitish suffused with rufous and irrorated with black; subbasal line represented by a slight blackish striga from costa; antemedial line double, black filled in with whitish, the inner line indistinct, slightly sinuous, angled outwards above inner margin; claviform

an irregular whitish patch before the medial line; orbicular and reniform with black centres and whitish annuli, small, the former round; an indistinct blackish medial line excurved at middle; postmedial line black defined on outer side by whitish, indistinctly double and oblique from costa to vein 4, then incurved and dentate; subterminal line whitish slightly defined on inner side by brown, with dentate black mark before it below costa and dark patch at middle extending to before postmedial line and thence to costa, minutely waved, excurved at middle; a terminal series of black striæ; cilia with dark patches below apex, at middle and tornus. Hind wing cupreous red-brown, darker towards termen; cilia whitish tinged with rufous; the underside whitish tinged with rufous, a brown discoidal lunule.

Hab. Guatemala, Volcan de Atitlan (*Champion*), 1 ♂. Godman-Salvin Coll.; Panama, 1 ♂ type, Chiriqui. *Exp.* 24 millim.

5523. Parangitia subrufescens.

Dodada subrufescens, Kaye, Trans. Ent. Soc. 1901, p. 123, pl. v. f. 14.

♀. Head, thorax, and abdomen greyish-rufous mixed with some red-brown and with black dorsal streak from middle of thorax to anal segment; pectus, legs, and ventral surface of abdomen pale, the tarsi with blackish bands, the abdomen with blackish lateral, sublateral, and ventral streaks on medial segments. Fore wing whitish suffused with red-brown and slightly irrorated with black, more thickly on basal half of inner margin and on terminal area in discal fold, forming slight streaks above and below vein 5; subbasal line represented by a slight oblique brown stripe from costa; antemedial line brown, minutely waved, oblique, almost obsolete on inner half; orbicular and reniform with faint whitish annuli defined by a few black scales, the former somewhat elliptical; a faint irregular pale-defined mark below the cell; traces of a brownish medial line excurved at middle; postmedial line double towards costa, then with a patch of olive-brown suffusion beyond it extending as a fascia in discal fold to tornus, oblique and sinuous to vein 4, incurved below vein 3 and excurved at vein 1, some pale points beyond it on costa; subterminal line pale, minutely dentate, angled inwards in submedian fold, defined on inner side by slight dentate olive-brown marks, the area beyond it olive-brown; some black points and lunules on termen; cilia olive-brown mixed with black. Hind wing black-brown with a reddish tinge, a slight rufous streak above tornus; cilia rufous; the underside whitish tinged with rufous and irrorated with fuscous, a dark discoidal bar and crenulate postmedial line.

Hab. Panama, La Chorrera (*Dolby-Tyler*), 1 ♀; Trinidad, Arima (*Kaye*), 1 ♀ type. *Exp.* 30 millim.

Genus ANGITIA.

Type.

Angitia, Wlk. xv. 1719 (1858) ..... *directa*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head and moderately scaled, the 3rd typically short; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed with hair and scales mixed, the prothorax without crest, the mesothorax with slight paired crests, the metathorax with spreading crest; tibiæ fringed with long hair above; abdomen with dorsal crests on basal segments. Fore wing with the apex rectangular, the termen somewhat excised below apex and oblique towards tornus and hardly crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a small areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell or shortly stalked; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Hind wing of male on upper side with strong folds in discal and submedian folds from base to termen, the termen excurved at middle; veins 3, 4 stalked and 5 from lower angle of cell; the hind tibiæ with tuft of long hair from base above.

5524. Angitia tiresias.

Drobeta tiresias, Druce, Biol. Centr.-Am., Het. i. p. 310, pl. 29. f. 1 (1889).

♂. Head and thorax ochreous white; antennæ brown; tegulæ with black-brown line near base and band near tips; patagia edged above with brownish; tarsi banded with brown; abdomen brownish white with brownish segmental lines. Fore wing dark red-brown mixed with greyish ochreous; subbasal line represented by blackish spots below costa and cell; antemedial line black, rather maculate, somewhat sinuous and slightly oblique; claviform,

Fig. 103.—*Angitia tiresias*, ♂. ½.

orbicular, and reniform small with blackish centres and faint whitish annuli, the two former rather oblique elliptical; medial line represented by a blackish spot on costa and a faint incurved line from lower angle of cell to inner margin; postmedial line double towards costa, oblique to vein 4 where it is acutely angled, then incurved and waved, an oblique dark bar beyond it from costa followed by some whitish points; subterminal line almost obsolete towards costa, then whitish, angled inwards at discal fold, incurved and waved below vein 3, an oblique blackish mark beyond it at

middle and some blackish at tornus; a terminal series of slight blackish lunules defined on inner side by whitish. Hind wing dark cupreous red-brown; the submedian fold white; cilia white at tips; the underside white tinged with brown, an indistinct curved waved postmedial line.

Hab. GUATEMALA, Las Mercedes (*Champion*), 1 ♂ type, Godman-Salvin Coll.; BRAZIL, Organ Mts., Tijuca (*Wagner*), 1 ♂. *Exp.* 30–32 millim.

SECT. II. Hind wing of male normal.

A. Hind tibiæ of male with fringe of long hair before and between medial spurs; abdomen with ventral rounded valve covered with scales on underside.
  a. Fore wing without pale apical patch defined on inner side and below by a dark shade.
    a^1. Fore wing with the medial area not suffused with black ..... *ithaca*.
    b^1. Fore wing with the medial area suffused with black ... *mesoscota*.
  b. Fore wing with more or less distinct pale apical patch defined on inner side and below by a dark shade.
    a^1. Fore wing with the claviform not represented by an ochreous white patch.
      a^2. Fore wing without white suffusion on medial and tornal areas ..... *albicincta*.
      b^2. Fore wing with white suffusion on medial and tornal areas.
        a^3. Fore wing with black patch at middle of terminal area ..... *pulchra*.
        b^3. Fore wing without black patch at middle of terminal area..... *attina*.
    b^1. Fore wing with the claviform represented by an ochreous white patch ..... *ochriplaga*.

5525. Angitia ithaca.

Drobeta ithaca, Druce, Biol. Centr.-Am., Het. i. p. 310, pl. 29. f. 2 (1889).

Head and thorax dark red-brown mixed with reddish yellow; abdomen red-brown mixed with greyish yellow and with yellow

Fig. 104.—*Angitia ithaca*, ♂. ½.

crests and segmental lines; the genital tufts of male black above, whitish below. Fore wing dark red-brown thickly irrorated with whitish yellow; subbasal line represented by a curved yellowish

striga from costa; antemedial line indistinctly double filled in with yellowish, oblique, waved; orbicular and reniform with slight yellowish annuli, the former open above, inwardly oblique elliptical, its outer edge angled outwards; an indistinct oblique dentate line from lower angle of cell to inner margin with a faint irregularly figure-of-eight-shaped yellowish mark before it below the cell; postmedial line indistinctly double filled in with yellowish, strongly bent outwards below costa, then dentate, incurved below vein 4, some yellowish points beyond it on costa; subterminal line yellowish white, defined on inner side by dentate blackish marks, waved, incurved at discal fold and below vein 3; a terminal series of slight blackish lunules defined on inner side by yellowish; cilia intersected by yellowish at the veins. Hind wing dark cupreous red-brown with a black striga above tornus defined on each side by whitish; cilia whitish tinged with rufous; the underside pale greyish rufous irrorated with brown, a faint oblique medial shade and a curved crenulate postmedial line.

Hab. Guatemala, Volcan de Atitlan (*Champion*), 1 ♀; Panama, Bugaba (*Champion*), 1 ♂ type, Godman-Salvin Coll. *Exp.* ♂ 34, ♀ 38 millim.

5526. **Angitia mesoscota**, n. sp. (Plate CLIX. fig. 4.)

♀. Head and thorax rufous mixed with dark brown; palpi and pectus paler; tarsi banded with dark brown; abdomen brown with pale rufous segmental lines. Fore wing pale greyish rufous irrorated with dark brown, the medial and terminal areas suffused with dark brown; traces of a double subbasal line from costa to vein 1; antemedial line indistinctly double filled in with whitish, waved, more strongly on inner area; claviform represented by two faint pale obliquely placed spots; orbicular and reniform with ill-defined whitish annuli, the former inwardly oblique elliptical, the latter constricted at middle; postmedial line indistinctly double filled in with whitish, strongly bent outwards below costa, then lunulate, incurved at discal fold and below vein 4, some whitish points beyond it on costa; subterminal line whitish, dentate, excurved below vein 7 and at middle and incurved at discal fold and below vein 3; a terminal series of slight blackish lunules defined on inner side by whitish. Hind wing dark cupreous red-brown with white striga at tornus with black point before it; cilia with series of yellow points at base and yellow tips; the underside greyish irrorated with brown, a faint oblique medial shade, discoidal striga, and curved crenulate postmedial line.

Hab. Trinidad, Cuparo (*Kaye*), 1 ♀ type. *Exp.* 40 millim.

5527. **Angitia albicauda**, n. sp. (Plate CLIX. fig. 5.)

Head and thorax ochreous tinged with rufous, the tegulæ near tips and metathorax with dark brown marks; abdomen dark

greyish brown, the genital tufts of male white. Fore wing greyish tinged with rufous and irrorated with dark brown; a pale rufous patch at base of costa bounded by the inwardly oblique blackish subbasal line; antemedial line blackish, very minutely waved, slightly excurved in cell, then inwardly oblique; orbicular and reniform with faint greyish annuli, the former inwardly oblique, the latter elliptical; an indistinct blackish medial line, excurved in cell, in submedian interspace defined by greyish on inner side and with some blackish beyond it; postmedial line double, black filled in with grey, minutely waved, oblique from costa to vein 4, then incurved, a wedge-shaped black mark in discal fold from it to near tornus; the apical area rather greyer; an indistinct greyish subterminal line, minutely waved, angled inwards at discal and submedian folds; a terminal series of black striæ. Hind wing dark cupreous red-brown with a slight blackish mark at tornus and terminal series of striæ; cilia intersected with whitish. Underside of male fuscous brown, the apical area of fore wing and terminal area of hind wing greyish, the latter with faint curved crenulate postmedial line; female greyish tinged with rufous and irrorated with brown, the fore wing with some fuscous suffusion on disk and angled postmedial line, the hind wing with oblique medial bar from costa, discoidal striga and curved crenulate postmedial line.

Hab. Trinidad, Cuparo (*Kaye*), 1 ♀; Venezuela, 1 ♀; Br. Guiana, Rockstone (*Kaye*), 1 ♂ type. *Exp.* ♂ 26, ♀ 28 millim.

5528. **Angitia pulchra.** (Plate CLIX. fig. 6.)

Angitia pulchra, Schaus, Trans. Ann. Ent. Soc. xxx. p. 165 (1904).

♀. Head white tinged with ochreous and with a few brown scales; thorax grey-white mixed with fuscous; pectus and legs ochreous white mixed with some brown, the tarsi banded with brown; abdomen ochreous white dorsally suffused with brown. Fore wing grey-white thickly irrorated with brown, the basal and apical areas suffused with ochreous brown; subbasal line represented by faint black striæ from costa and cell; antemedial line indistinct, blackish, minutely waved, somewhat oblique; claviform, orbicular, and reniform faintly defined by white, elliptical, the two former rather inwardly oblique; postmedial line indistinctly double, blackish, slightly bent outwards below costa, then minutely waved, incurved at discal fold and below vein 4; subterminal line hardly traceable, minutely waved, excurved at middle; a blackish patch on middle of terminal area; a terminal series of small black lunules slightly defined on inner side by whitish; cilia ochreous white with blackish patches below apex, at middle and tornus. Hind wing dark reddish brown, the cilia chequered yellowish white and brown; the underside whitish suffused with reddish brown, a faint discoidal lunule and curved postmedial line.

Hab. Panama, La Chorrera (*Dolby-Tyler*), 1 ♀; Venezuela, type† in U.S. Nat. Mus. *Exp.* 30 millim.

5529. Angitia attina.

Drobeta attina, Druce, Biol. Centr.-Am., Het. ii. p. 494, pl. 95. f. 11 (1898).

♀. Head and thorax grey-white mixed with brown; abdomen ochreous tinged with brown and with dark segmental lines. Fore wing grey-white thickly irrorated with brown; subbasal line represented by two slight striæ from costa and black streaks on subcostal nervure and vein 1; antemedial line with black striga from costa, then very indistinct, oblique, sinuous; orbicular and reniform faintly defined by white, the former round, the latter with the white on outer edge reduced to points: an oblique downcurved blackish fascia from costa above end of cell to termen at vein 5; postmedial line indistinct, bent outwards below costa, then minutely waved, excurved to vein 4, then incurved, some dark points beyond it on costa; subterminal line whitish with brown suffusion before and beyond it, minutely waved, excurved at middle; a terminal series of black points, a pale line at base of cilia. Hind wing ochreous suffused with brown; a terminal series of black striæ defined by yellowish; cilia yellowish with a dark line at middle; the underside yellowish with some brown irroration on terminal area, a dark discoidal spot and indistinct curved postmedial line.

Palpi with the 3rd joint long and obliquely porrect.

Hab. Panama, Chiriqui (*Champion*), 1 ♀ type. *Exp.* 36 millim.

5530. Angitia ochriplaga, n. sp. (Plate CLIX. fig. 7.)

♀. Head, thorax, and abdomen grey-white mixed with cupreous brown, the last with whitish segmental lines; pectus and abdomen below white. Fore wing cupreous brown mixed with white; subbasal line represented by a slight dark striga from costa; antemedial line indistinct, double, waved, erect; claviform a rounded yellowish white patch; orbicular and reniform with white annuli, the former small, round, the latter narrow, constricted at middle and slightly angled inwards on median nervure; an indistinct oblique dark striga from middle of costa and oblique line from lower angle of cell to inner margin; postmedial line indistinctly double, oblique and minutely sinuous and with the inner line strong from costa to vein 4, then inwardly oblique and minutely dentate; subterminal line indistinct, white, minutely dentate, ending at tornus, with a slight blackish mark before it below costa and blackish patch beyond it at discal fold; a terminal series of slight black lunules faintly defined on inner side by whitish. Hind wing cupreous brown, the cilia white; the underside whitish tinged with cupreous brown, a faint diffused curved postmedial line.

Palpi rather slender with the 3rd joint longer.

Hab. Br. Guiana, Potaro R. (*Kaye*), 1 ♀ type. *Exp.* 32 millim.

B. Hind tibiæ and abdomen of male normal.
  a. Fore wing with the claviform and reniform confluent.
    a^1. Fore wing with pinkish centres to orbicular and reniform ..... *directa.*
    b^1. Fore wing with blackish centres to orbicular and reniform.
      a^2. Fore wing with pale ochreous subterminal band ... *melanecra.*
      b^2. Fore wing with fine whitish subterminal line ..... *carneopicta.*
  b. Fore wing with the claviform and reniform not confluent.
    a^1. Fore wing with white patch on inner half of terminal area ..... *albicincta.*
    b^1. Fore wing without white patch on inner half of terminal area.
      a^2. Fore wing pale green, the termen acutely angled at middle ..... *viridana.*
      b^2. Fore wing yellow tinged with rufous, the termen slightly excurved at middle ..... *eriopica.*

5531. Angitia directa.

Angitia directa, Wlk. xv. 1719 (1858).

♂. Head and thorax whitish mixed with pink and rufous; palpi with some black at base; frons with lateral black bars; tegulæ with blackish lines near base and tips; fore tarsi brownish with pale rings; abdomen ochreous whitish, the crests rufous. Fore wing with the basal half whitish tinged with pinkish, the terminal half suffused with olive-brown; some oblique diffused black scaling at base; traces of a waved olive-brown antemedial line, almost obsolete on inner area; claviform, orbicular and reniform

Fig. 105.—*Angitia directa*, ♂. ½.

whitish tinged with pink, ill-defined, connected on median nervure, a brownish patch between the two latter; some blackish suffusion beyond and below end of cell; postmedial line slight, blackish, oblique to vein 6, slightly incurved at discal fold, incurved and dentate below vein 4; a whitish patch on costa towards apex with three black striæ on it; subterminal line whitish, dentate and produced to streaks on the veins, excurved below vein 7 and at middle, some slight black suffusion beyond it at middle; a terminal series of black striæ; cilia pinkish mixed with black at tips. Hind wing ochreous white suffused with purplish brown, especially toward termen; cilia ochreous with a brown line through them;

the underside yellowish white, the costal and terminal areas tinged with pinkish and irrorated with brown, a brown discoidal spot and postmedial and subterminal series of black points.

Hab. Venezuela, Aroa, 1 ♂; Brazil, Rio Janeiro, type † in Mus. Oxon. *Exp.* 32 millim.

5532. Angitia melamera, n. sp. (Plate CLIX. fig. 8.)

Drobeta excendens, Druce, Biol. Centr.-Am., Het. i. p. 310 (nec Wlk.).

♀. Head and thorax brownish ochreous; antennæ brown; tegulæ with black lines near base and at middle; patagia suffused with purplish fuscous; vertex of thorax with some black; pectus and legs whitish, the fore tarsi banded with blackish; abdomen brownish ochreous, the ventral surface whitish. Fore wing ochreous whitish irrorated with black, the base and inner medial area suffused with purplish fuscous, the rest of outer part of medial area olive-brown irrorated with black and with a large patch of black suffusion below end of cell; traces of a blackish subbasal line defined on inner side by whitish scales, from costa to submedian fold; antemedial line black defined on inner side by whitish scales, oblique, sinuous; orbicular and reniform with whitish annuli and black-irrorated centres, small, the former oblique wedge-shaped, the latter confluent with an oblique wedge-shaped spot below middle of cell; postmedial line indistinctly double, bent outwards below costa, then minutely waved, excurved to vein 4, then incurved, some pale points beyond it on costa; subterminal line indistinct, pale, angled inwards at discal fold and excurved at middle, a wedge-shaped blackish mark beyond it at discal fold; a terminal series of black striæ. Hind wing dark reddish brown with a blackish bar at tornus with some rufous beyond it; cilia yellow; the underside whitish suffused with brownish ochreous, traces of a curved postmedial line, a fine black terminal line.

Ab. 1. Fore wing with the outer part of medial area almost wholly suffused with black.—Panama.

Hab. Panama, Chiriqui (*Champion*), 1 ♀, Godman-Salvin Coll.; Br. Guiana, Rockstone (*Kaye*), 1 ♀ type. *Exp.* 30 millim.

5533. Angitia carneopicta, n. sp. (Plate CLIX. fig. 9.)

♀. Head and thorax pale rufous mixed with some fuscous; abdomen greyish irrorated with fuscous, the crests and anal tuft pale rufous. Fore wing pinkish and rufous irrorated with black and whitish scales, the apical area whitish tinged with olive-brown; traces of a sinuous blackish subbasal line defined on inner side by whitish, from costa to vein 1; antemedial line black, angled outwards below costa and above inner margin; orbicular and reniform pink, the former inwardly oblique elliptical, the latter confluent with an oblique elliptical mark below the cell, some olive-brown between them in cell and and from lower angle of cell to

inner margin; postmedial line blackish, obsolescent towards costa, oblique and sinuous to vein 4, then incurved and dentate, some whitish points beyond it on costa; subterminal line whitish angled outwards at veins 7, 6 and inwards in discal fold, excurved at middle, then incurved; a terminal series of slight blackish lunules. Hind wing reddish brown, the terminal area blackish; a pale bar above tornus; the termen and cilia rufous; the underside ochreous white irrorated and suffused with purplish red, an indistinct curved minutely waved postmedial line.

Hab. Brazil, Rio Janeiro (*Wilson*), 1 ♀ type. *Exp.* 32 millim.

*5534. Angitia albirufa. (Plate CLIX. fig. 10.)

Angitia albirufa, Druce, A. M. N. H. (8) iii. p. 464 (1909).

♀. Head and thorax deep red; abdomen yellowish suffused with red; pectus, legs, and ventral surface of abdomen at base whitish, the tarsi blackish ringed with white. Fore wing dark brown suffused with deep red, the terminal area white from vein 4 to tornus with a pale rufous band on it; subbasal line represented by a pale striga from costa; antemedial line brownish white, angled outwards below costa, then oblique and bent inwards to inner margin; claviform slightly defined by white at extremity; orbicular and reniform with brownish white annuli, the former small, round, the latter rather triangular; postmedial line brownish white slightly defined on each side by black, oblique from below costa to vein 6, excurved to vein 4, then obliquely incurved, some pale points beyond it on costa; subterminal line represented by white points on the dark area, excurved below vein 7, on the white area by a black line on the rufous band from vein 2 to inner margin, incurved at submedian fold; a fine black terminal line forming small lunules between veins 4 and 2; cilia deep red with black tips from apex to vein 3, then pale rufous with black tips at tornus. Hind wing dark cupreous red-brown; cilia pale red with some black at tips at tornus; the underside white thickly irrorated with fuscous, a black discoidal spot and curved postmedial line.

Hab. Peru, S. Domingo (*Ockenden*), type † ♀ in Coll. Druce. *Exp.* 26 millim.

5535. Angitia viridans. (Plate CLIX. fig. 11.)

Angitia viridans, Schaus, Trans. Ann. Ent. Soc. xxx. p. 165 (1904).

♂. Head, thorax, and abdomen whitish mixed with some rufous and fuscous. Fore wing pale olive-green with a faint rufous tinge and thickly irrorated with black; a subbasal black point in cell and blackish mark above inner margin; antemedial line indistinct, blackish, double, the lines widely separated and slightly dentate; claviform represented by a slight black annulus; orbicular and reniform incompletely defined by black scales, irregular, the former small, oblique, the latter large, an indistinct sinuous line from it to

inner margin; postmedial line rather indistinct, black, double towards costa, strongly bent outwards below costa, then dentate, angled inwards at discal fold and incurved below vein 4; subterminal line indistinct, blackish, waved, angled outwards below vein 7, incurved at discal fold and oblique below vein 4; a terminal series of black points; cilia purplish pink, white towards tornus and with some black at middle. Hind wing whitish wholly suffused with dark brown; a terminal series of dark striæ; cilia whitish tinged with rufous; the underside white irrorated with pink and a few dark scales, a dark discoidal spot and curved minutely waved postmedial line.

Hab. Brazil, Petropolis (*Dorr*), 1 ♂, Castro Paraña (*D. Jones*), type † ♂ in U.S. Nat. Mus. *Exp.* 26 millim.

5536. **Angitia eriopica**, n. sp. (Plate CLIX. fig. 12.)

♀. Head and thorax yellow mixed with some rufous; tarsi brown ringed with rufous; abdomen brown mixed with grey, the crests yellow, the ventral surface whitish. Fore wing yellow suffused in parts with rufous and slightly irrorated with black; subbasal line slight, black, angled outwards below costa and excurved below cell, ending at submedian fold; antemedial line double, black filled in with whitish, angled outwards below costa, then excurved; orbicular and reniform very ill-defined, whitish, a quadrate black mark between them with a blackish patch above it on costa and a diffused patch below end of cell; postmedial line double, black filled in with whitish, bent outwards below costa, excurved to vein 4, then incurved, the costa beyond it black with some whitish points on it; the postmedial area with a diffused blackish line, somewhat excurved at middle, then minutely dentate; subterminal line whitish, very slightly angled outwards at vein 7, excurved to termen at middle, then incurved and bent outwards to tornus; a punctiform black terminal line; cilia with fine black line near tips which are chequered with white. Hind wing dark brown, the cilia whitish with a dark line through them; the underside irrorated with white, a slight discoidal lunule and indistinct curved postmedial line.

Hab. Brazil, Amazons, Pará (*Austen*), 1 ♀ type. *Exp.* 18 millim.

Genus **CHLOROCODIA**, nov.

Type, *C. olivescens*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching about to middle of frons and moderately scaled, the 3rd moderate; frons with small rounded prominence with corneous plate below it; eyes large, round; antennæ of male minutely ciliated; thorax clothed closely with scales, the pro- and metathorax with spreading crests; tibiæ moderately fringed with hair; abdomen with dorsal series of crests, the crests on terminal segments large. Fore wing with the apex somewhat produced, the termen excurved at middle, then excised to tornus; veins 3 and 5 from near angle of cell; 6 from upper

angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5537. Chlorocodia olivescens, n. sp.

♂. Head, thorax, and abdomen yellowish white mixed with pale olive-green and rufous. Fore wing white suffused with pale olive-green and faintly irrorated with fuscous; subbasal line represented by slight double dark striæ from costa; a dark mark on inner margin near base; antemedial line indistinct, double, oblique, waved; claviform slightly defined by brown; orbicular slightly defined by brown, small, round; reniform incompletely defined by blackish scales and with some raised rufous scales on its inner side, large and somewhat constricted at middle; an indistinct medial

Fig. 106.—*Chlorocodia olivescens*, ♂. ½.

line, oblique from costa to reniform, sinuous from lower angle of cell to inner margin; postmedial line rather indistinct, double, bent outwards below costa, then minutely waved, excurved to vein 4, then incurved and defined by white on outer side, some whitish points beyond it on costa; subterminal line white, excurved to near termen below vein 7 and at middle; a terminal series of slight black lunules defined by white on inner side. Hind wing yellowish white, the termen tinged with rufous; a terminal series of black striæ; the underside white tinged with rufous and sparsely irrorated with black scales, a slight discoidal lunule and traces of a sinuous postmedial line.

Hab. Brazil, Rio Janeiro, 1 ♂ type. *Exp.* 26 millim.

Genus GLAUCICODIA, nov.

Type, *G. leucocephra*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd moderate; frons with small rounded prominence with corneous plate below it; eyes large, round; antennæ of female ciliated; thorax clothed chiefly with scales, the pro- and metathorax (?) with spreading crests; tibiæ slightly fringed with hair; abdomen with dorsal crest at base only. Fore wing with the apex rectangular, the termen crenulate, oblique from vein 4 to tornus; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5538. Glaucicodia leuconephra, n. sp.

♀. Head and thorax white mixed with olive-green; palpi white tinged with pinkish and banded with black; antennæ ringed with black; tibiæ and tarsi blackish ringed with white; abdomen grey tinged with pinkish and irrorated with fuscous. Fore wing white suffused with olive-green and slightly irrorated with black; black points on base of costa and in cell near base; subbasal line white, from costa to submedian fold followed by a diffused black band; antemedial line blackish, double at costa, then slight, interrupted and defined by whitish on inner side, erect, waved; orbicular a minute round white spot defined by black; reniform a white patch extending to costa, defined by black at sides and angled inwards

Fig. 107.—*Glaucicodia leuconephra*, ♀. $\frac{3}{2}$.

on median nervure; an indistinct dentate black medial line, oblique from costa to lower angle of cell; postmedial line double, black filled in with whitish, minutely sinuous, oblique from costa to vein 6, incurved below vein 4, the area beyond it whitish except towards costa on which there are some white points; subterminal line white defined on inner side by blackish, excurved below vein 7, excurved and waved at middle; an oblique black spot at apex; a terminal series of small black lunules slightly defined by white on inner side; cilia chequered white and black. Hind wing whitish suffused with fuscous; cilia white and fuscous; the underside suffused with purplish pink, a black discoidal spot, slight postmedial line excurved at middle, and traces of subterminal line with blackish mark at discal fold.

Hab. Cuba, Baracoa (*Schaus*), 1 ♀ type. *Exp.* 24 millim.

Genus PARACODIA, nov.

Type, *P. puella*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to middle of frons and moderately scaled, the 3rd moderate; frons with rounded prominence with corneous plate below it; eyes large, round; antennæ of female minutely ciliated; thorax clothed almost entirely with scales, the pro- and metathorax with spreading crests, the mesothorax with slight paired crests; tibiæ moderately fringed with hair; abdomen with dorsal crest at base only. Fore wing with the apex somewhat produced, the termen excurved at middle and oblique towards tornus; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with white streak on extremity of median nervure . *albivena.*
B. Fore wing without white streak on extremity of median nervure.
  a. Fore wing with oblique whitish subterminal band ..... *puella.*
  b. Fore wing without oblique whitish subterminal band.
    *a*¹. Fore wing pale olive-yellow ..... *praxina.*
    *b*¹. Fore wing glossy red-brown ..... *albiceps.*

5539. **Paracodia albivena**, n. sp. (Plate CLIX. fig. 13.)

♀. Head, thorax, and abdomen pale ochreous irrorated with brown; palpi blackish at sides; tarsi brown ringed with ochreous. Fore wing pale ochreous irrorated with black, the medial area except towards costa tinged with brown; a strong black streak below base of vein 1; antemedial line absent; claviform represented by a very short black streak; a silvery white streak on terminal half of median nervure, hooked at extremity and defined by black scales; a triangular ochreous mark in cell before the reniform, which is incompletely defined by black and with some white in upper part: postmedial line indistinctly double, obsolete on costal area, met at vein 7 by an oblique black-irrorated brown fascia from apex, incurved at discal fold, slightly angled outwards at vein 4, below which there is a brown fascia from it to termen with three slight black streaks on it, then strongly incurved and slightly dentate: some brownish suffusion on terminal area below apex and towards tornus; a terminal series of black points. Hind wing ochreous white irrorated with brown; traces of a sinuous postmedial line; a terminal series of blackish striæ; the underside with black discoidal spot, the postmedial line more distinct.

Hab. Chili, Mulchen (*Elwes*), 1 ♀ type. *Exp.* 32 millim.

5540. **Paracodia puella.**

Taraehe puella, Schaus, Trans. Am. Ent. Soc. xxx. p. 158 (1904).

♀. Head and thorax black-brown mixed with ochreous, grey and white, the metathorax with whitish patch: fore and mid tibiæ

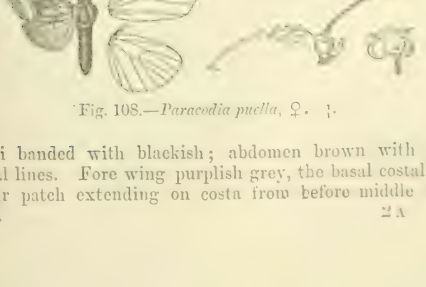

Fig. 108.—*Paracodia puella*, ♀. ½.

and tarsi banded with blackish; abdomen brown with whitish segmental lines. Fore wing purplish grey, the basal costal area, a triangular patch extending on costa from before middle to near

apex and to inner margin before postmedial line, and the terminal area suffused with cupreous brown; subbasal line represented by double dark striæ from costa; antemedial line indistinct, double filled in with whitish, angled outwards in submedian fold and inwards on vein 1; claviform represented by an oblique dark bar at its extremity; orbicular and reniform with whitish annuli defined by black-brown, both oblique and constricted at middle; traces of a medial line, oblique from costa to the reniform and sinuous below the cell; postmedial line double filled in with whitish on costal half and yellowish on inner half, bent outwards below costa, excurved to vein 4, then oblique, some slight whitish points beyond it on costa; an oblique white subterminal band, the slight white subterminal line arising from it at vein 5 and excurved at middle; a terminal series of small blackish lunules; a fine white line at base of cilia. Hind wing reddish brown; cilia whitish mixed with brown; the underside greyish irrorated with brown, a slight discoidal spot and traces of minutely waved postmedial and subterminal lines.

Hab. Brazil, São Paulo (*D. Jones*), 1 ♀. *Exp.* 28 millim. Type † in U.S. Nat. Mus.

*5541. Paracodia praxina. (Plate CLIX. fig. 14.)

Tarache praxina, Schaus, Trans. Am. Ent. Soc. xxx. p. 159 (1904).

♀. Head and thorax ochreous white tinged with rufous; palpi with some brown at sides; fore legs tinged with brown; abdomen ochreous white irrorated with fuscous. Fore wing yellowish white suffused and irrorated with olive-brown; an antemedial whitish band defined on each side by brown scales, inwardly oblique and waved to vein 1, then excurved above inner margin; claviform a whitish patch defined by brown at extremity and extending to cell; orbicular and reniform whitish with faint rufous centres, the former rather elliptical, the latter dilated above and constricted at middle, a blackish patch between them; an oblique brown line from lower angle of cell to inner margin; a narrow whitish postmedial band, defined on each side by brown, bent outwards below costa, slightly angled outwards at vein 6 and oblique below vein 4; some white striæ beyond it from costa; a narrow whitish subterminal band, oblique from costa to vein 6 just beyond postmedial band, excurved at vein 5, then oblique; a terminal series of slight brown striæ; cilia whitish with brown line through them, the tips chequered with brown. Hind wing yellowish white faintly tinged with brown; a terminal series of brown striæ; the underside sparsely irrorated with brown, a blackish discoidal spot, curved postmedial line, and traces of diffused subterminal line.

Hab. Brazil, Castro Paraña (*D. Jones*), type † ♀ in U.S. Nat. Mus. *Exp.* 30 millim.

*5542. Paracodia albiceps. (Plate CLIX. fig. 15.)

Paracodia albiceps, Druce, A. M. N. H. (8) iii. p. 465 (1909).

♂. Head white tinged with rufous; palpi rufous, the tips of 2nd and 3rd joints white; frons with lateral red-brown bars; antennæ red-brown; thorax cupreous red-brown with white spot on metathorax; abdomen rufous, pale at base; pectus, legs, and ventral surface of abdomen whitish tinged with rufous. Fore wing glossy red-brown with leaden silvery bands on medial area and beyond postmedial line; antemedial line whitish defined on each side by rufous, waved; stigmata absent; postmedial line indistinctly double, dark filled in with rufous, oblique from costa to vein 5, then minutely waved, ending near tornus; faint traces of a minutely waved subterminal line; a terminal series of blackish striæ. Hind wing white faintly tinged with rufous and slightly irrorated with brown; a terminal series of black striæ; cilia white with a blackish line through them; the underside with blackish discoidal spot and indistinct postmedial line excurved at middle.

Hab. Colombia, Magdalena, Valeparaiso (*H. H. Smith*), type† ♂ in Coll. Druce. *Exp.* 18 millim.

Genus MICTOCHROA, nov.

Type, *M. zonella*.

Proboscis fully developed; palpi obliquely upturned, short, rather slender, and moderately scaled; frons with large corneous prominence with raised edges; eyes large, rounded; antennæ of male ciliated; head and thorax clothed almost entirely with scales and without crests; build slender; tibiæ moderately fringed with hair; abdomen without crests. Fore wing rather short and broad, the apex rectangular, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the postmedial line excurved from below costa to vein 4.
  a. Fore wing with the basal half not deep red.
    a^1. Fore wing with the postmedial line not incurved to lower edge of reniform.
      a^2. Hind wing white tinged with ochreous ..... *farona*.
      b^2. Hind wing suffused with brown.
        a^3. Fore wing with the reniform angled inwards on median nervure.
          a^4. Hind wing with postmedial line on upperside ..... *[illegible]*.
          b^4. Hind wing without postmedial line on upperside ..... *zonella*.
        b^3. Fore wing with the reniform not angled inwards on median nervure.
          a^4. Fore wing rufous suffused in parts with dark brown ..... *parigana*.
          b^4. Fore wing brassy yellow suffused in parts with dark brown ..... *albivena*.

*b*¹. Fore wing with the postmedial line incurved to lower edge of reniform ..... *caterva.*
b. Fore wing with the basal half deep red ..... *thermoptera.*
B. Fore wing with the postmedial line bent outwards below costa, then nearly straight and oblique..... *triangularis.*
C. Fore wing with the postmedial line strongly angled outwards at vein 6, then bent inwards to lower edge of reniform..... *angularis.*

*5543. Mictochroa farona. (Plate CLIX. fig. 16.)

Microcalia farona, Schaus, Trans. Am. Ent. Soc. xxx. p. 151 (1904).

♂. Head and thorax ochreous mixed with black-brown; 2nd joint of palpi blackish at sides and with pale ring at extremity; frons blackish at middle: tarsi fuscous with pale rings: abdomen ochreous white irrorated with black. Fore wing ochreous tinged with rufous and largely suffused and irrorated with black except on postmedial area; subbasal line represented by double black striæ from costa; antemedial line oblique, waved, double and filled in with ochreous at costa, with a broad band of white suffusion beyond it from cell to inner margin; orbicular and reniform with rufous centres and white annuli defined by black, the former rather triangular, the latter somewhat constricted at middle; postmedial line black defined by white tinged with rufous on outer side, double towards costa, bent outwards below costa, oblique to vein 6, slightly incurved at discal fold, incurved and sinuous below vein 4, some white points beyond it on costa on a triangular blackish patch; subterminal line white defined by black suffusion on inner area and on outer side except at apex, angled outwards at vein 7 and inwards at discal fold, then waved and excurved at middle; a terminal series of slight black lunules; cilia blackish with whitish lines at base and middle. Hind wing white tinged with ochreous and slightly irrorated with brown especially at termen; traces of a sinuous postmedial line; a terminal series of slight black lunules; cilia white with a brown line through them; the underside ochreous white irrorated with black-brown, a black discoidal spot and waved postmedial line.

Hab. Brazil, São Paulo (*D. Jones*), type † ♂ in U.S. Nat. Mus. *Exp.* 34 millim.

*5544. Mictochroa harmonica. (Plate CLIX. fig. 17.)

Mictochroa harmonica, Druce, A. M. N. H. (8) iii. p. 461 (1909).

♂. Head and thorax rufous mixed with some black and white scales; palpi black, the tips of joints pale rufous; tibiæ and tarsi black ringed with whitish; abdomen greyish thickly irrorated with fuscous. Fore wing brassy yellow tinged with rufous, irrorated with black and some white; the veins black irrorated with white, the medial area with black-brown suffusion in, beyond, and below end of cell; a curved subbasal white striga from costa with small

black spots before it on costa and in cell and diffused patches beyond it; antemedial line blackish, waved, with leaden-grey patch beyond it from submedian fold to above inner margin; claviform represented by a white and black striga at its extremity; orbicular yellow defined by black except above and with slight white annulus below, small, elliptical; reniform with yellow centre slightly defined by black and white annulus defined by black, rather oblique and angled inwards on median nervure, a slight pink mark in centre; postmedial line defined on outer side by yellowish, bent outwards below costa, excurved to vein 4, then incurved, minutely dentate and with black and white points beyond it on the veins with pink between them and white mark at inner margin, some white points beyond it on costa; subterminal line whitish defined on inner side by black suffusion, angled outwards at vein 7 and inwards at discal fold and vein 2; a terminal series of slight black lunules; cilia with fine black line at middle, the tips chequered golden brown and white. Hind wing greyish suffused with brown, a slight discoidal spot, sinuous postmedial line and fine terminal line; cilia whitish mixed with brown and with dark line at middle; the underside whitish thickly irrorated with brown, a brown discoidal spot and curved crenulate postmedial line.

Hab. Colombia, Magdalena, Sierra del Libano (*H. H. Smith*), type † ♂ in Coll. Druce. *Exp.* 30 millim.

5545. Mictochroa zonella.

Miana zonella, Druce, Biol. Centr.-Am., Het. i. p. 274, pl. 26. f. 23 (1889).

Head and thorax whitish tinged with brown and mixed with blackish; palpi with the 2nd joint blackish at sides; frons with black bar; tegulæ and patagia tipped with blackish; tarsi fuscous with pale rings; abdomen pale brown irrorated with fuscous. Fore wing pinkish white tinged with brown, the outer part of

Fig. 109.—*Mictochroa zonella*, ♂. ½.

medial area pale olive-brown except towards costa, the terminal area pale brown; a subbasal black mark on inner margin; some slight black streaks in the interspaces before the very indistinct waved whitish antemedial line; claviform represented by a black bar at its extremity; orbicular small, elliptical, with brownish centre

and white annulus, some black on its outer edge and on inner edge of reniform, which is white with brownish centre, somewhat constricted at middle and angled inwards on median nervure; an indistinct oblique waved medial line; postmedial line double, strongly bent outwards below costa, incurved at discal fold, strongly incurved and minutely waved below vein 4, some black and white points beyond it on costa; subterminal line whitish slightly defined by black on inner side, with diffused black patch before it below costa and beyond it at discal fold, excurved below vein 7 and at middle, then incurved and waved, angled inwards at discal fold; a terminal series of small black lunules; cilia grey with blackish medial line and black and white chequered tips. Hind wing fuscous brown, the cilia pale brown with dark medial line and whitish tips; the underside greyish thickly irrorated and suffused with brown, a black discoidal spot and faint minutely crenulate postmedial line.

Hab. Costa Rica, Irazu (*Rogers*), 5 ♂ type, Candelaria Mts. (*Underwood*), 1 ♂, 1 ♀, Godman-Salvin Coll. *Exp.* 26 millim.

5546. Mictochroa parigana. (Plate CLIX. fig. 18.)

Microcœlia parigana, Schaus, Trans. Am. Ent. Soc. xxx. p. 151 (1904).

♂. Head and thorax whitish mixed with cupreous brown and dark brown; fore and mid tibiæ and tarsi banded with blackish; abdomen white irrorated with brown. Fore wing rufous irrorated and in parts suffused with dark brown; subbasal line represented by a whitish striga from costa; antemedial line brown defined by white on inner side, incurved at vein 1; claviform represented by a curved white and brown mark at its extremity; orbicular and reniform with reddish centres with some white on them and white annuli defined by brown, the former round, the latter constricted at middle; medial line represented by a dark mark on costa and a sinuous line from cell to inner margin; postmedial line double filled in with white, bent outwards below costa, then very minutely waved, excurved to vein 4, then incurved, some white and blackish spots beyond it on costa; subterminal line white defined on inner side by slight dentate black marks, dentate, angled inwards at discal and submedian folds; a terminal series of slight red-brown lunules; cilia white mixed with red-brown. Hind wing white irrorated with brown; traces of curved postmedial and subterminal lines; a fine dark terminal line; the underside white irrorated with pale crimson and red-brown, the terminal area suffused with brown, a slight discoidal lunule and rather diffused curved postmedial line.

Hab. Brazil, Castro Paraña (*D. Jones*), 1 ♂. *Exp.* 28 millim.

5547. Mictochroa albirena. (Plate CLIX. fig. 19.)

Mictochroa albirena, Druce, A. M. N. H. (8) iii. p. 460 (1909).

♀. Head and thorax olive-yellow tinged with rufous; palpi and antennæ dark brown; tibiæ and tarsi dark brown ringed with whitish; abdomen grey thickly irrorated with brown and slightly tinged with yellow. Fore wing brassy yellow suffused with dark brown and slightly irrorated with grey-white, the inner area brassy yellow tinged with rufous to medial line, the termen yellow tinged with cupreous red except at apex; subbasal line double filled in with yellowish, waved, from costa to median nervure; antemedial line double filled in with yellowish, waved; claviform and orbicular yellow defined by black, conjoined, the former short, the latter round; reniform whitish tinged with yellow and defined by black, elliptical with waved outline and rather constricted at middle, black points in its upper and lower parts, a yellowish mark above it on costa and an indistinct curved dark line from lower angle of cell to inner margin; postmedial line double filled in with yellowish, bent outwards below costa, then minutely waved, excurved to vein 4, then incurved, some white points beyond it on costa and the postmedial area white tinged with yellow from vein 4 to inner margin; subterminal line whitish defined on inner side by black, diffused towards costa and forming lunules between veins 4 and 2, the line excurved below vein 7 and at middle; the veins of terminal area slightly streaked with black; a slight whitish line just before termen with white points at the extremities of the veins; cilia cupreous red at base, whitish at tips. Hind wing whitish suffused with dark brown; a terminal series of minute white points; cilia reddish at base, whitish at tips; the underside olive-brown irrorated with blue-white, an indistinct brown discoidal spot and curved crenulate postmedial line.

Hab. Colombia, Magdalena, Sierra del Libane (*H. H. Smith*), 1 ♀. *Exp.* 26 millim. Type † in Coll. Druce.

*5548. Mictochroa caterva. (Plate CLIX. fig. 20.)

Tarache caterva, Schaus, Trans. Am. Ent. Soc. xxx. p. 159 (1904).

♂. Head, thorax, and abdomen ochreous white suffused with rufous; palpi blackish except at base; frons with blackish bar above; fore femora blackish. Fore wing ochreous whitish slightly tinged with rufous and irrorated with fuscous; a slight blackish subbasal mark in cell; antemedial line double, brown filled in with whitish, angled outwards below costa, then oblique especially below submedian fold; slight black points at middle of cell and submedian fold; reniform whitish defined by black, its centre tinged with rufous; outer half of medial area suffused with red-brown, its inner edge angled outwards on median nervure; postmedial line double filled in with whitish, bent outwards below costa, incurved at discal fold and strongly below vein 4; postmedial

costal area with black patch with some pale points on costa; a subterminal series of slight black points, incurved below vein 3; a terminal series of minute black lunules; cilia pale at base, brownish at tips. Hind wing ochreous white suffused with brown; a terminal series of small black lunules; the underside whitish tinged with rufous and slightly irrorated with brown, a blackish discoidal spot.

Hab. Brazil, Castro Paraña (*D. Jones*), type † ♂ in U.S. Nat. Mus. *Exp.* 22 millim.

5549. Mictochroa thermoptera. (Plate CLIX. fig. 21.)

Mictochroa thermoptera, Druce, A. M. N. H. (8) iii. p. 461 (1909).

Head and thorax deep blood-red mixed with some yellowish; antennæ blackish ringed with white towards base; abdomen brownish with white segmental lines and the crests blood-red; pectus and legs whitish tinged with red, the tarsi black ringed with white; ventral surface of abdomen red. Fore wing deep red to the postmedial line and on costal area to the subterminal line, the basal inner area and terminal area yellowish suffused with red; subbasal line indistinct, pale, waved, from costa to submedian fold; antemedial line whitish, angled outwards below costa, excurved below the cell and angled inwards at vein 1; claviform represented by a faint pale lunule at its extremity; orbicular with whitish annulus defined by deep red, small, round; reniform with pale centre defined by red and white annulus defined by deep red, narrow, bar-shaped; medial line indistinct, deep red, oblique from costa to lower angle of cell, then slightly incurved and sinuous; postmedial line double filled in with whitish, bent outwards below costa, incurved at discal fold where there is a small dentate black mark before it, incurved and somewhat dentate below vein 4, with some whitish suffusion beyond it; the postmedial costal patch with some white points on costa; subterminal line very indistinct, whitish, minutely waved, excurved below vein 7 and at middle and with minute black points before it below veins 7 and 5; a terminal series of black points; cilia deep red with a series of black points at tips. Hind wing greyish suffused with brown; a terminal series of slight black lunules; cilia blood-red; the underside white tinged with red and irrorated with black, a black discoidal spot, crenulate postmedial line, and terminal series of small lunules.

Hab. Peru, S. Domingo (*Ockenden*), 1 ♀. *Exp.* ♂ 28, ♀ 34 millim. Type † ♂ in Coll. Druce.

*5550. Mictochroa triangularis. (Plate CLIX. fig. 22.)

Tarache triangularis, Schaus, Trans. Am. Ent. Soc. xxx. p. 158 (1904).

♀. Head, thorax, and abdomen ochreous tinged with rufous and mixed with a few black scales; tarsi brown ringed with ochreous. Fore wing olive-brown, the costal area ochreous tinged with

rufous and irrorated with a few blackish scales from inner margin before middle obliquely to apex, its lower edge defined by a whitish and black line from inner margin to upper edge of reniform; a subbasal black point in cell; faint traces of a pale antemedial line, oblique from costa to middle of cell, then inwardly oblique; orbicular represented by a dark point; reniform a narrow reddish ochreous bar defined by black; postmedial line double filled in with whitish, bent outwards below costa, oblique to vein 5, bent inwards to lower angle of cell, then again oblique, defined on outer side by reddish ochreous; the veins towards apex defined by slight brown streaks; a small triangular subapical blackish spot; subterminal line diffused and blackish from the pale costal area to discal fold, then pale defined by blackish on outer side, excurved at middle, then straight; a terminal series of black points. Hind wing ochreous whitish tinged with red-brown especially on terminal area; a terminal series of small blackish lunules; cilia whitish tinged with rufous and with faint brownish line through them; the underside whitish tinged with rufous and irrorated with brown, a black discoidal spot, minutely waved postmedial line with dark points on the veins, excurved to discal fold, then oblique, and terminal series of black points.

Hab. Brazil, Petropolis, type † ♀ in U.S. Nat. Mus. *Exp.* 36 millim.

*5551. Mictochroa angularis. (Plate CLIX. fig. 23.)

Taracha angularis, Schaus, Trans. Am. Ent. Soc. xxx. p. 158 (1904).

♀. Head and thorax rufous mixed with dark brown, the vertex of head whitish; antennæ ringed with whitish; pectus and legs ochreous whitish, the tarsi blackish ringed with white; abdomen ochreous irrorated with brown, the crests black. Fore wing ochreous whitish suffused with red-brown especially on medial and terminal areas and irrorated with black, the costal area paler, the postmedial area much paler; subbasal line represented by two slight brown striæ from costa; antemedial line brown defined on inner side by ochreous white, angled outwards below costa, waved to submedian fold, then inwardly oblique; orbicular with brown centre and ochreous annulus defined by black, small and rather elongate elliptical; reniform a narrow ochreous bar defined by black, its centre defined by red-brown; traces of a waved blackish medial line from lower angle of cell to inner margin; postmedial line double filled in with ochreous white, with two small black spots at costa, oblique to vein 6 where it is strongly angled outwards, then inwardly oblique to vein 5, slightly excurved beyond lower angle of cell, then erect, some pale points beyond it on costa; subterminal line brown defined by ochreous white on outer side and with blackish patch before it on costa, angled outwards at vein 7, then oblique and slightly excurved at middle; a terminal series of slight black lunules. Hind wing ochreous whitish suffused with

brown, a terminal series of slight blackish lunules; cilia ochreous white; the underside ochreous white irrorated with brown, a blackish discoidal spot, curved minutely waved postmedial line, and terminal series of small black lunules.

Hab. Brazil, Castro Paraña (*D. Jones*), type† ♀ in U.S. Nat. Mus. *Exp.* 34 millim.

Genus GONOPHÆA, nov.

Type, *G. villica.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd short, porrect; frons smooth; eyes large, round; antennæ of male somewhat laminate and minutely ciliated; thorax clothed almost entirely with scales and without distinct crests; tibiæ smoothly scaled; abdomen without crests. Fore wing with the apex somewhat produced, the termen strongly excised below apex and excurved at middle, not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5552. Gonophæa villica.

Tarache villica, Schaus, Trans. Am. Ent. Soc. xxx. p. 159 (1904).

♂. Head, thorax, and abdomen dark brown with a purplish grey tinge; pectus, legs, and ventral surface of abdomen greyer, the tarsi slightly ringed with white. Fore wing dark cupreous brown with a purplish grey gloss except on inner medial and terminal areas; antemedial line indistinct, double, slightly sinuous; orbicular faintly defined by brown, round; reniform faintly defined on inner side only; traces of a dark medial line, oblique from costa to

Fig. 110.—*Gonophæa villica*, ♂. $\frac{3}{2}$.

reniform and incurved below the cell; postmedial line dark, bent outwards below the costa, incurved at discal fold and below vein 4 and slightly angled outwards at vein 1, some pale points beyond it on costa; subterminal line indistinct, dark, slightly waved, somewhat excurved at middle; a terminal series of faint pale striæ. Hind wing cupreous brown, the underside grey irrorated with brown, traces of a curved postmedial line.

Hab. Brazil, Castro Paraña (*D. Jones*), 1 ♂. *Exp.* 24 millim.

Genus CHALENATA.

Chalenata, Wlk. xxx. 1001 (1864) ..... Type. *micacella*.

Proboscis aborted, small; palpi obliquely upturned, the 2nd joint reaching about to middle of frons and moderately scaled, the 3rd small; frons smooth; eyes large, round; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate, veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 very shortly stalked; 5 nearly fully developed from well above angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Antennæ of male bipectinate with moderate branches, the apex serrate.

A. Fore wing with the medial area below and beyond the cell suffused with black ..... *mesonephele*.
B. Fore wing with the whole medial area suffused with black. *ustata*.

5553. Chalenata mesonephele, n. sp.

♂. Head, thorax, and abdomen ochreous white mixed with some black-brown; palpi blackish at sides; fore and mid tibiæ and the tarsi blackish, the latter with slight pale rings. Fore wing ochreous white with slight fuscous irroration, the medial area suffused with blackish below and beyond the cell; a blackish mark

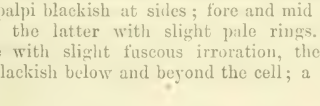

Fig. 111.—*Chalenata mesonephele*, ♂.

at base of costa; antemedial line rather diffused, black, angled inwards in cell and on vein 1; a small black discoidal spot; post-medial line rather diffused, black, slightly angled outwards at vein 6 and excurved beyond lower angle of cell, then strongly incurved, some slight black striæ beyond it from costa; traces of a dark subterminal line excurved below vein 7 and at middle; a terminal series of slight dark striæ; cilia ochreous white mixed with brown. Hind wing creamy white; the underside slightly irrorated with brown, a slight dark discoidal point and brownish spot on costa towards apex.

Hab. Argentina, Sta. Fé, Ocampo (*Wagner*), 1 ♂ type. *Exp.* 20 millim.

*5554. Chalenata ustata. (Plate CLIX. fig. 24.)

Chalenata ustota, Druce, A. M. N. H. (8) iii. p. 461 (1909).

♂. Head and thorax ochreous suffused with red-brown; abdomen ochreous suffused with fuscous, the hind legs and ventral surface of abdomen without dark suffusion. Fore wing with the basal area rufous irrorated with dark brown, the costa suffused with black-brown, the medial area suffused with black-brown, the terminal area ochreous white with some dark brown suffusion on costa to subterminal line; a faint dark subbasal line from costa to median nervure; antemedial line dark, waved; a diffused dark discoidal spot; postmedial line double filled in with ochreous, excurved below costa and at middle, then incurved and sinuous, some pale points beyond it on costa; subterminal line represented by slight brown suffusion on its inner side, slightly excurved below vein 7 and at middle; a terminal series of small black lunules; cilia dark brown at tips. Hind wing ochreous white irrorated with brown, thickly on basal half; a terminal series of dark brown striæ; the underside ochreous slightly irrorated with brown.

Hab. Colombia, Magdalena, Minca (*H. H. Smith*), type † ♂ in Coll. Druce. *Exp.* 24 millim.

Sect. II. Antennæ of male serrate and fasciculate.

A. Fore wing not irrorated with silvery blue scales.
  a. Fore wing with the postmedial line defined on outer side by white ..... *fumosa*.
  b. Fore wing with the postmedial line not defined on outer side by white.
    *a*¹. Fore wing strongly irrorated with dark brown, the postmedial line not bent outwards beyond the cell ... *bilinea*.
    *b*¹. Fore wing slightly irrorated with purplish brown, the postmedial line bent outwards beyond the cell ..... *lilacina*.
B. Fore wing irrorated with silvery blue scales ..... *micacella*.

5555. Chalenata fumosa. (Plate CLIX. fig. 25.)

Microphysa fumosa, Butl. Trans. Ent. Soc. 1879, p. 28.

♂. Head, thorax, and abdomen dark reddish brown mixed with greyish ochreous; antennæ fuscous. Fore wing greyish ochreous thickly irrorated with dark brown, the outer half of medial area and the costal and terminal areas rather darker; an indistinct dark sinuous antemedial line; an ill-defined dark discoidal spot; postmedial line rather diffused, dark, defined on outer side by whitish except towards costa, oblique from costa to vein 7, then inwardly oblique and minutely waved, some slight whitish points beyond it on costa; faint traces of a pale subterminal line; a terminal series of dark striæ. Hind wing whitish suffused with reddish brown; a fine dark terminal line; cilia with a series of dark points at base; the underside white tinged with rufous and slightly

irrorated with brown, a dark discoidal spot and traces of a diffused postmedial line.

Hab. Brazil, Amazons, R. Jutáhi (*Trail*), 1 ♂ type. *Exp.* 16 millim.

5556. Chalenata bilinea.

Toxophleps bilinia, Schaus, Trans. Am. Ent. Soc. xxx. p. 160 (1904).

Head, thorax, and abdomen purplish grey tinged with reddish brown; palpi, antennæ, and legs fuscous brown. Fore wing purplish grey thickly irrorated with reddish brown; antemedial line black-brown, incurved in cell, then minutely waved; a slight blackish discoidal striga; postmedial line diffused, black-brown,

Fig. 112.—*Chalenata bilinea*, ♂.

inwardly oblique and minutely waved; an indistinct brown subterminal line, excurved below vein 7 and at middle; a terminal series of black points. Hind wing whitish suffused with reddish brown; a fine dark terminal line; the underside whitish tinged and irrorated with red-brown.

Hab. Brazil, Itaparica (*Meade-Waldo*), 1 ♂, São Paulo (*D. Jones*), 4 ♂, 1 ♀. *Exp.* 16–20 millim.

5557. Chalenata lilacina, n. sp. (Plate CLIX. fig. 26.)

Head, thorax, and abdomen pale grey slightly irrorated with brown, the palpi, antennæ, and legs browner. Fore wing pale grey irrorated with purplish brown, the costal edge brown; a minutely waved erect dark antemedial line; a small blackish discoidal lunule; postmedial line rather diffused, blackish, oblique from costa to vein 6, then inwardly oblique and minutely waved, some pale points beyond it on costa; a faint nearly straight whitish subterminal line; a terminal series of small black lunules. Hind wing grey tinged with brown; a terminal series of black points; the underside grey irrorated with brown, an indistinct discoidal spot.

Hab. Brazil, Espiritu Santo, 1 ♀; Argentina, Gran Chaco, Florenzia (*Wagner*), 1 ♂ type. *Exp.* 18 millim.

5558. Chalenata micaceella. (Plate CLIX. fig. 27.)

Chalenata micaceella, Wlk. xxx. 1001 (1864).

♀. Head, thorax, and abdomen very dark olive-brown; pectus,

legs, and ventral surface of abdomen greyer. Fore wing very dark olive-brown; some silvery blue scales at base of costa and cell and some on costa near base; antemedial line formed of silvery blue scales tending to form spots, curved; two small patches of silvery blue scales on medial area, some scattered scales in cell and between lower angle of cell and inner margin; postmedial line formed of silvery blue scales tending to form spots, incurved below vein 4; a subterminal series of spots formed of silvery blue scales; some silvery blue scales on termen; cilia greyish above middle and tornus. Hind wing very dark olive-brown; medial and postmedial waved lines formed of silvery scales and a terminal band of silvery scales; the underside olive-brown mixed with grey.

Hab. Brazil, Amazons, Ega (*Bates*), 1 ♀ type. *Exp.* 14 millim.

Genus **STENOLOBA.**

	Type.
Stenoloba, Staud. Rom. Mém. vi. p. 381 (1892)	*jancousci.*
Neothripa, Hmpsn. Moths Ind. ii. p. 382 (1894)	*punctistigma.*

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching about to vertex of head and moderately scaled, the 3rd moderate; frons with slight rather pointed conical prominence; eyes large, round; antennæ of male ciliated; thorax entirely clothed with very large scales, the prothorax with very long oblique flattened crest, the metathorax with spreading crest; fore tibiæ fringed with long hair, the mid and hind tibiæ moderately fringed with hair; abdomen with dorsal crest at base only. Fore wing rather narrow, the margins subparallel, the apex rounded, the termen rather obliquely curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from or from just below upper angle; 7 from areole; 9 from 10 anastomosing with 8 to form the area which is longitudinally narrow and elongate, or abnormally 8, 9 separately from the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with white fascia along median nervure and thence obliquely to apex	*jancousci.*
B. Fore wing without white fascia.	
a. Fore wing not tinged with green.	
a^1. Fore wing with rufous centre to orbicular	*ferrimacula.*
b^1. Fore wing without rufous centre to orbicular.	
a^2. Fore wing with the orbicular and reniform defined by rufous and black scales	*manleyi.*
b^2. Fore wing with the orbicular a black point, the reniform a black bar	*clara.*
b. Fore wing tinged with green.	
a^1. Fore wing without points of raised white scales on the lines.	
a^2. Fore wing with the basal and medial costal areas tinged with pale green	*punctistigma.*
b^2. Fore wing with patches of bright yellow-green on basal, medial, and terminal areas.....	*viridimicta.*
b^1. Fore wing with points of raised white scales on the lines	*glaucescens.*

5559. Stenoloba jancousci.

Dichagyris jankowskii, Oberth. Ét. Ent. x. p. 28, pl. 3. f. 5 (1884); Staud. Cat. Lep. pal. p. 361.
Elema nivilinea, Leech, P. Z. S. 1888, p. 638, pl. 32. f. 1; Kirby, Cat. Het. p. 573.

Head and thorax grey-white mixed with olive-brown; tarsi brown ringed with white; abdomen ochreous brown with slight whitish segmental lines. Fore wing bluish white, the costal area olive-brown, expanding to discal fold from before middle to end of cell, then curving upwards to a point on costa before apex, the inner area tinged with grey-brown, the terminal area suffused with reddish brown, narrowly towards apex, broadly towards tornus; an elliptical disocoidal spot, obsolescent above, defined by blackish points below; a rather oblique sinuous postmedial line

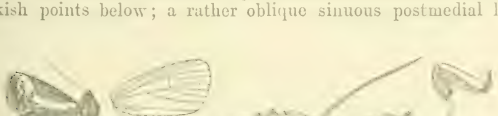

Fig. 113.—*Stenoloba jancousci*, ♂. ½.

from vein 6 to inner margin, the veins beyond it streaked with white below the costa; subterminal line white, excurved below vein 7 and at middle, incurved at discal and submedian folds; a fine white line just before termen. Hind wing whitish tinged with brown, the terminal area suffused with brown; cilia whitish tinged with brown; the underside white tinged with brown, the terminal area suffused with brown, a dark patch on middle of costa, discoidal spot, and minutely waved postmedial line oblique towards costa, then sinuous.

Hab. E. Siberia, Ussuri; Japan, Oiwake, 1 ♂, Yokohama (*Pryer*), 2 ♂, 2 ♀ type *nivilinea*. *Exp.* 32–36 millim.

5560. Stenoloba ferrimacula. (Plate CLIX. fig. 28.)

Erastria ferrimacula, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 472 (1906).

Head and thorax grey-white faintly tinged with olive; palpi behind and antennæ blackish; abdomen whitish dorsally suffused with brown. Fore wing grey-white slightly tinged with olive; subbasal line whitish defined at sides by a few fuscous scales, entire, excurved in submedian interspace; antemedial line double and black from costa to median nervure, then white defined at sides by some fuscous scales, oblique, waved, angled inwards on vein 1; orbicular represented by a tuft of rough rufous scales with a patch of white suffusion from it to postmedial line with

the reniform on it, faintly defined and with black points at sides; a medial black bar from costa and oblique diffused line from lower angle of cell to inner margin; postmedial line with double black bars from costa, then indistinctly double filled in with whitish, bent outwards below costa, excurved to vein 4, then incurved, some black points beyond it on costa; subterminal line indistinct, whitish, defined on inner side by olive suffusion, excurved below vein 7 and at middle and bent outwards to tornus; a terminal series of black points; cilia chequered olive-whitish and fuscous. Hind wing fuscous brown, the cilia whitish with a brown line through them; the underside whitish irrorated with brown, a blackish discoidal spot, medial bar from costa, rather diffused crenulate postmedial line, and terminal series of lunules from apex to vein 2.

Hab. Assam, Khâsis, 1 ♂, 1 ♀ type. *Exp.* ♂ 24, ♀ 30 millim.

5561. Stenoloba manleyi.

Selepa manleyi, Leech, P. Z. S. 1889, p. 479, pl. 52. f. 1.

Head, thorax, and abdomen brown mixed with greyish. Fore wing brown mixed with some grey; basal area grey irrorated with brown and with slight subbasal black streaks in cell and submedian fold, its outer edge oblique from costa to submedian fold where it is angled, then incurved; antemedial line indistinctly double filled in with whitish, oblique, waved; orbicular represented by some fiery red scales, the reniform defined by slight black marks and with some red scales round it; an indistinct double waved medial line excurved at middle; postmedial line double filled in with whitish, bent outwards below costa, then minutely dentate, excurved to vein 4, then incurved; subterminal line faint, whitish, defined on inner side by slight dentate black marks, angled outwards at vein 7 and excurved at middle; a terminal series of minute black lunules; cilia with a fine pale line at base. Hind wing brown, the cilia whitish; the underside whitish irrorated with brown, a dark discoidal spot and indistinct crenulate postmedial line.

Hab. Japan, Nikko (*Ito*), 1 ♀, Yokohama (*Pryer*), 3 ♂, 2 ♀ type; Corea, Gensan (*Ito*), 1 ♂, 1 ♀. *Exp.* 28–32 millim.

5562. Stenoloba clara. (Plate CLIX. fig. 29.)

Selepa clara, Leech, P. Z. S. 1889, p. 479.

Head and thorax white mixed with brown and black; palpi white in front; pectus whitish; tarsi ringed with white; abdomen whitish suffused with brown. Fore wing white tinged with brown and slightly irrorated with black, the terminal area suffused with brown; subbasal line double, blackish filled in with white, entire, excurved in submedian interspace; antemedial line double, black filled in with white, oblique, sinuous, angled inwards on

vein 1; orbicular a black point, the reniform a black bar; an oblique sinuous medial line angled outwards below costa and cell and forming a black patch on costa extending to just beyond the postmedial line, which is double, black filled in with white, bent outwards below costa, excurved to vein 4, then incurved and slightly excurved at vein 1, some alternating black and white points beyond it on costa; subterminal line slight, whitish, defined on inner side by black and red scales and with black patch before it on costa, excurved below vein 7 and at middle; the terminal area browner except at apex; a terminal series of black points. Hind wing whitish suffused with brown; cilia with whitish line at base and whitish tips; the underside whitish tinged and irrorated with brown, a dark discoidal spot and indistinct rather diffused crenulate postmedial line excurved beyond the cell.

Hab. Japan, Oiwake (*Pryer*), 1 ♂, 1 ♀, Yokohama (*Pryer*), 1 ♂, 1 ♀ type, Tsu-shima (*Holt*), 1 ♂. *Exp.* 24–28 millim.

5563. Stenoloba punctistigma. (Plate CLIX. fig. 30.)

Neothripa punctistigma, Hmpsn. Moths Ind. ii. p. 382 (1894).

Head and thorax grey mixed with olive-brown; abdomen grey slightly tinged with brown. Fore wing glossy pale brown, the basal area and medial costal area suffused with grey and tinged with green; subbasal line blackish, bent outwards below costa, then oblique to above vein 1 where it is angled outwards, then incurved to inner margin; antemedial line indistinctly double, oblique, sinuous; clavi form represented by a slight brown annulus below middle of cell; orbicular and reniform large, incompletely defined by points of raised black scales, the former round, the latter elliptical; postmedial line double at costa, bent outwards below costa, then somewhat dentate and produced to white points on the veins, excurved to vein 4, then incurved, some blackish points beyond it on costa; subterminal line grey defined on inner side by brown suffusion, excurved below vein 7 and at middle and angled inwards at discal fold; a terminal series of blackish points. Hind wing grey suffused with brown with a cupreous gloss, the cilia whiter; the underside whitish faintly tinged with brown, traces of a diffused antemedial line, a discoidal spot, diffused postmedial line excurved below costa and incurved below vein 3, and terminal series of faint spots.

Hab. Punjab, Simla (*Harford*), 1 ♂, 2 ♀ type, Kangra (*Hocking*), 1 ♂, 2 ♀. *Exp.* 28–32 millim.

5564. Stenoloba viridimicta, n. sp. (Plate CLIX. fig. 31.)

♂. Head and thorax brown mixed with grey and yellow green; palpi whitish in front except towards extremities; abdomen grey-brown. Fore wing red-brown mixed with grey and some purplish black scales; the basal area with patches of yellow-green; a

subbasal black point below costa; antemedial line very indistinct, angled outwards on subcostal nervure, then oblique; orbicular and reniform defined by points of raised black scales at their angles, the latter with tuft of rufous scales in centre and patch of yellow-green beyond its lower extremity; some yellow-green on middle of costa; postmedial line very indistinct, bent outwards below costa, excurved to vein 4, then incurved; an oblique yellow-green patch at apex and the terminal area yellow-green from vein 4 to tornus; a terminal series of slight black points with some yellow-green between them below apex; cilia red-brown. Hind wing reddish brown tinged with grey, the cilia whitish with a dark line near base; the underside ochreous white irrorated with brown, a faint diffused antemedial line, discoidal spot, and sinuous postmedial line.

Hab. Assam, Khásis, 1 ♂ type. *Exp.* 30 millim.

*5565. Stenoloba glaucescens. (Plate CLIX. fig. 32.)

Neothripa glaucescens, Hmpsn. Moths Ind. ii. p. 382 (1894).

♂. Head and thorax grey tinged with green and mixed with brown; palpi white in front; pectus, legs, and abdomen white tinged with brown. Fore wing white tinged with olive-green the terminal half suffused with iron-brown except towards costa two points of raised white scales at base; subbasal line represented by a series of points of raised white scales with black points before them, oblique to subcostal nervure, angled inwards in cell and outwards above vein 1; antemedial line dark with a series of points of raised white scales on it, oblique, excurved below costa and submedian fold, angled inwards on vein 1 and outwards above inner margin; orbicular defined by four points of raised white scales at its angles, the reniform by two points of raised white scales with small black spot beyond them on the inner edge of a dark annulus; a small dark annulus below middle of cell medial line represented by a slight oblique striga from costa and traces of a sinuous line from lower angle of cell to inner margin; postmedial line indistinctly double, dark with series of points of raised white scales on it, strongly bent outwards below costa, then minutely dentate and produced to white points on the veins somewhat incurved below vein 7, some slight dark marks beyond it on costa; subterminal line defined by a dark shade on its inner side and by short fiery red streaks at veins 7 to 5, slightly excurved below vein 7 and at middle; a terminal series of black points. Hind wing whitish suffused with brown; the underside whitish slightly irrorated with brown, traces of a diffused oblique antemedial line, a dark discoidal spot and sinuous postmedial line.

Hab. Assam, Khásis, type † ♂ in Coll. Rothschild. *Exp.* 28 millim.

Genus STENOSTYGIA, nov.

Type, *S. nigritula*.

Proboscis fully developed; palpi porrect, not extending beyond the frons and moderately scaled; frons with truncate prominence with raised edges, its lower edge produced to a beak-like point, a large corneous plate below it; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled, the fore tibiæ short with large curved claw on inner side at extremity; abdomen without crests. Fore wing narrow, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 shortly stalked; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5566. Stenostygia nigritula.

Taraehe nigritula, Hmpsn. Moths Ind. iv. p. 514 (1896).

♂. Head and thorax dark cupreous brown mixed with some grey; lower part of frons whitish; tarsi blackish ringed with whitish; abdomen greyish suffused with ochreous brown. Fore wing dark cupreous brown mixed with grey; subbasal line represented by a slight black striga from costa; antemedial line black, minutely dentate, erect; orbicular a white point defined by black; reniform white, constricted at middle and connected with the costa by a whitish patch; a rather diffused medial line from cell to inner margin; postmedial line black, bent outwards below costa, then minutely dentate, incurved below vein 4;

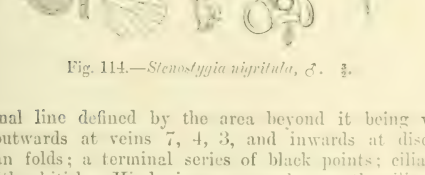

Fig. 114.—*Stenostygia nigritula*, ♂. ¾.

subterminal line defined by the area beyond it being whitish, angled outwards at veins 7, 4, 3, and inwards at discal and submedian folds; a terminal series of black points; cilia brown mixed with whitish. Hind wing cupreous brown, the cilia whitish with a slight brown line near base.

♀. Head, thorax, and fore wing much more uniform black-brown, the last with the orbicular more prominent, the subterminal line only defined by slight whitish marks at discal fold and towards tornus.

Hab. Bombay, Deesa (*Nurse*), 1 ♂, 1 ♀; Ceylon, Puttalam (*Pole*), 2 ♀ type. *Exp.* 18–22 millim.

Genus SCOTOSTENA, nov.

Type, *S. lugens*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching to about middle of frons and moderately scaled, the 3rd short; frons with rounded prominence with slight raised edges at extremity and minute truncate process from middle, a curved corneous plate below it; eyes large, round; antennæ of female ciliated; thorax clothed almost entirely with scales, the prothorax without crests, the metathorax with decumbent crest; tibiæ smoothly scaled; abdomen without crests. Fore wing rather narrow, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

A. Fore wing fuscous brown ..... *lugens*.
B. Fore wing ochreous brown..... *pinodes*.

5567. Scotostena lugens, n. sp.

♀. Head, thorax, and abdomen fuscous brown with a greyish tinge; palpi, pectus, and legs with whitish mixed, the tarsi ringed with white. Fore wing fuscous brown with a greyish tinge; subbasal line represented by a faint blackish striga from costa; antemedial line indistinct, black defined on inner side by greyish

Fig. 115.—*Scotostena lugens*, ♀. ⅔.

waved, somewhat oblique; orbicular a whitish or white point defined by black; reniform with brown centre and more or less complete whitish or white annulus defined by black, constricted at middle; postmedial line slight, blackish defined on outer side by grey, bent outwards below costa, then very minutely waved, strongly incurved below vein 4; subterminal line hardly traceable, excurved below vein 7 and at middle; a terminal series of black points; cilia greyish with a slight dark line near base. Hind wing reddish brown, the cilia whitish with a brown line through them, the underside greyish suffused with brown.

Hab. Br. N. Guinea, Port Moresby, 4 ♀ type. *Exp.* 16–2 millim.

*5568. Scotostena pinodes. (Plate CLX. fig. 1.)

Tarache pinodes, Turner, P. Linn. Soc. N.S.W. xxxiv. p. 350 (1909).

♂. Head and thorax red-brown tinged with grey; palpi white at base; pectus and legs whitish irrorated with brown, the tar

uscous ringed with white; abdomen grey suffused with red-brown. Fore wing ochreous brown with a greyish tinge, the terminal half irrorated with blackish; subbasal line represented by blackish joints on costa and median nervure; antemedial line double, the inner line slight, the outer strong, black, oblique, sinuous; orbicular represented by an oblique black striga; reniform ochreous whitish defined at sides by black and its centre slightly by black scales, constricted at middle; a curved red-brown medial shade; postmedial line black defined on outer side by ochreous, bent outwards below costa, strongly excurved to vein 4, then bent inwards to below end of cell and angled outwards at vein 1; subterminal line faint, whitish, defined on inner side by a black patch at costa, then by slight black spots, excurved below vein 7 and at middle; a terminal series of small black lunules; cilia grey with a black line through them. Hind wing greyish suffused with red-brown; cilia grey with a dark line near base; the underside grey with slight dark irroration, a curved postmedial line.

Hab. Queensland, Townsville (*Dodd*), type † ♂ in Coll. Turner; N. Australia, Port Darwin. *Exp.* 20 millim.

Genus **PROTARACHE**, nov.

Type, *P. eulepidea*.

Proboscis fully developed; palpi upturned, slight, hardly reaching to middle of frons which has a large corneous prominence with raised edges and slight roughened knob in centre; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with decumbent crest; tibiæ moderately fringed with hair; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing without white patch in end of cell.
  a. Fore wing without antemedial patch of black scales below the cell ..... *eulepidea.*
  b. Fore wing with antemedial patch of black scales below the cell ..... *duplicata.*
B. Fore wing with white patch in end of cell.
  a. Fore wing with the patch in cell large, elliptical ..... *gladiola.*
  b. Fore wing with the patch in cell much smaller and produced at lower extremity ..... *requies.*

5569. Protarache eulepidea.

Tarache eulepidea, Hmpsn. Moths Ind. iv. p. 514 (1896).

Head and thorax white mixed with some reddish brown; palpi dark brown with the extremities of 1st and 2nd joints and the 3rd joint whitish; tegulæ with slight medial brown line; tarsi banded with brown; abdomen white tinged with rufous, the basal crest blackish. Fore wing whitish; the basal area irrorated with brown and a few pink and black scales; antemedial line slight,

brown, angled outwards below costa, then waved, some brown suffusion before it on inner area with two blackish marks on it; medial area suffused with purplish grey and with blackish beyond the cell; reniform represented by a slight black lunule; a blackish medial line, oblique to upper extremity of reniform, strongly excurved beyond the cell and incurved below vein 4; postmedial

Fig. 116.—*Protarache eulepidea*, ♂. ¾.

line double, black filled in with white and some pinkish, slightly bent outwards below costa, then minutely waved, excurved to vein 4, then incurved; subterminal line white, defined on inner side by red-brown suffusion, excurved below vein 7 and at middle, angled inwards at discal fold, incurved below vein 3 and bent outwards to tornus, the area beyond it irrorated with grey; a terminal series of slight black striæ; cilia brownish and white. Hind wing reddish brown; cilia yellowish white mixed with brown; the underside ochreous white irrorated with brown, a brown discoidal bar.

Hab. Ceylon, Puttalam (*Pole*), 1 ♂, 2 ♀ type. *Exp.* 22 millim.

5570. **Protarache melaphora**, n. sp. (Plate CLX. fig. 2.)

Tarache eulepidea, Hmpsn. Ann. S. Afr. Mus. ii. p. 389 (part.).

♀. Head and thorax white tinged with rufous; abdomen whitish tinged with ochreous brown. Fore wing whitish suffused with rufous; a diffused patch of raised black scales in and below the cell before the very indistinct sinuous whitish antemedial line; medial area leaden grey with a blackish tinge beyond the cell; postmedial line indistinct, double filled in with whitish, slightly angled outwards below costa, excurved to vein 4, then oblique; subterminal line indistinct, whitish defined on inner side by rufous suffusion, excurved below vein 7 and at middle, the area beyond it irrorated with grey; a terminal series of slight black striæ; cilia white and grey with a slight dark line at middle. Hind wing reddish brown, the cilia whitish with a brown line at middle; the underside ochreous white irrorated with brown, a terminal series of blackish striæ.

Hab. Bechuanaland, N'Gami (*Lugard*), 1 ♀. *Exp.* 22 millim.

*5571. ? **Protarache gladiola**. (Plate CLX. fig. 3.)

Chamaelea gladiola, Barnes, Can. Ent. xxxix, p. 67 (1907).

Head brown; thorax white, the tegulæ yellowish at base, th

metathorax with some olive and violet scales; abdomen brown. Fore wing dark olive-brown with some pale olive-yellow and violet scales mixed, the terminal area white; a white patch at base emitting a streak below median nervure; antemedial line almost obsolete; a large elliptical white patch in cell on medial area with the reniform beyond it, narrow, indistinct with pale annulus; postmedial line indistinctly double, bent outwards below costa, incurved at discal fold and below vein 4; subterminal line absent; traces of a series of terminal dark points. Hind wing fuscous brown with traces of discoidal point and curved postmedial line; cilia white. Underside of fore wing fuscous with discal yellowish patch and the costa yellowish; hind wing yellowish white with dark postmedial band.

Hab. U.S.A., Arizona, Sta. Catalina Mts. *Exp.* 28 millim. This species is unknown to me, the frontal structure examined by H. G. Dyar; figured from a drawing from type in Coll. W. Barnes.

*5572. ? Protarache requies. (Plate CLX. fig. 4.)

Centrartha requies, Dyar, Proc. Ent. Soc. Wash. xi. p. 21 (1909).

Head dark brown, the palpi paler; thorax and abdomen creamy white. Fore wing purple-brown with a metallic gloss and irrorated with pale purple scales, the basal and terminal areas creamy white, the costal edge brown at base; antemedial line slight, whitish defined on inner side by brown, minutely waved; orbicular absent; a creamy white spot produced at lower extremity in end of cell before the faint reniform; an incurved dark shade from lower angle of cell to inner margin; postmedial line brown defined on outer side by whitish, excurved below costa, then oblique, sinuous; three black points on termen just above middle. Hind wing white finely irrorated with fuscous, the cilia white. Underside of fore wing silky blackish, the costa, apex, and discal spot pale; hind wing silky white.

Hab. Mexico, Tehuacan (*Müller*). *Exp.* 26 millim. This species is unknown to me; figured from a drawing from type in U.S. Nat. Mus.

Genus UNCULA.

Type.

Uncula, Swinh. Cat. Het. Mus. Oxon. ii. p. 52 (1900)..... *herberia.*

Proboscis aborted, small; palpi obliquely upturned, the 2nd joint reaching to about middle of frons and rather broadly scaled, the 3rd moderate; frons with corneous prominence with raised edges forming a transverse groove across it, no corneous plate below it; eyes large, round; thorax clothed almost entirely with scales and without distinct crests; tibiæ smoothly scaled; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 shortly stalked; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect I. Antennæ of male bipectinate with moderate branches.

A. Fore wing brown with curved white mark in end of cell... *lunata.*
B. Fore wing whitish with dark mark in submedian interspace before postmedial line ..... *herbaria.*

*5573. Uncula lunata. (Plate CLX. fig. 5.)

Tarache lunata, Lower, Tr. R. Soc. S. Austr. xxvii. p. 32 (1903).

♂. Head whitish; thorax brown mixed with white; abdomen grey. Fore wing yellowish brown pencilled with raised black scales; a broad oblique white antemedial band from costa to vein 1 emitting on outer side a large black-defined tooth in submedian fold; a downcurved white mark in cell from middle to discocellulars where its upper and lower edges are indented by black points; a sinuous postmedial white band from vein 3 to inner margin; a white subterminal band excurved at middle and incurved at submedian fold, with some black points on its inner edge. Hind wing white suffused with brown.

Hab. S. Australia, L. Mulligan, type † ♂ in Coll. Lower. *Exp.* 26 millim.

5574. Uncula herbaria.

Hiccoda herbaria, Swinh. P. Z. S. 1886, p. 446; Hmpsn. Moths Ind. ii. p. 306.

Head and thorax white faintly tinged with olive, the vertex of head, pro- and metathorax with a few black scales: palpi and sides of frons blackish; antennæ with the branches blackish in male, the shaft ringed with black in female; pectus and legs tinged with brown, the tarsi brown ringed with white; abdomen ochreous brown, the ventral surface whitish. Fore wing whitish faintly tinged with olive-ochreous and with slight dark irroration;

Fig. 117.—*Uncula herbaria*, ♂. $\frac{3}{2}$.

subbasal line represented by a black point on costa, the antemedial line by black points on costa and inner margin; claviform represented by a black lunule at extremity with a patch of black suffusion from it to postmedial line; orbicular a minute black point; the reniform defined by some black points and a few scales below; terminal half of costa with alternating blackish and white points; postmedial line very incomplete, formed of black scales, minutely waved, arising at vein 6 and incurved below vein 4; subterminal line with a blackish bar from costa, then defined by ochreous suffusion on

inner side, slightly incurved below vein 3; some black scaling at middle of terminal area and a terminal series of black striæ; cilia white with some black scales and a blackish patch at middle. Hind wing whitish suffused with fuscous brown; some blackish striæ on termen, the cilia whiter; the underside ochreous white irrorated with brown, a slight discoidal spot and traces of a diffused curved postmedial line.

Hab. Bombay, Mhow (*Swinhoe*), 1 ♂, 2 ♀ type. *Exp.* 18 millim.

Sect. II. Antennæ of male ciliated.

5575. Uncula tristigmatias.

Hyela tristigmatias, Hmpsn. Ann. S. Afr. Mus. ii. p. 392 (1902).

Head and thorax fuscous brown mixed with some rufous; fore tibiæ and the tarsi with whitish rings; abdomen reddish brown. Fore wing rufous almost entirely suffused with purplish fuscous, the terminal area with more rufous; subbasal line represented by two black striæ from costa; antemedial line double, black filled in with grey, waved, somewhat oblique; claviform, orbicular, and

Fig. 118.—*Uncula tristigmatias*, ♂. ¾.

reniform rufous defined by black, the two former small, round, the last more or less angled inwards on median nervure, the first sometimes minute and filled in with whitish; a sinuous black line from lower angle of cell to inner margin; postmedial line double, black filled in with grey, bent outwards below costa, then minutely waved, excurved to vein 4, then incurved, some pale points beyond it on costa; subterminal line slight, pale more or less distinctly defined on inner side by brown, slightly excurved below vein 7 and at middle and bent outwards to tornus; a terminal series of black striæ. Hind wing cupreous brown with a slight punctiform dark terminal line; cilia with a fine whitish line at base; the underside whitish thickly irrorated with dark brown, a blackish discoidal spot, curved postmedial line, traces of a diffused subterminal band, and terminal series of striæ.

Hab. Br. E. Africa, Stony R. (*Crawshay*), 1 ♂, Machakos (*Crawshay*), 1 ♂, Kikuyu, Nairobi (*Crawshay*), 1 ♂, 1 ♀ type, Kiu (*Crawshay*), 2 ♂, Athi R. (*Betton*), 1 ♂; Uganda, Ketoma (*Doggett*), 8 ♂, Mulema (*Doggett*), 3 ♂; Mashonaland, Salisbury (*Marshall*), 3 ♂. *Exp.* 20–22 millim.

Genus XANTHOLEUCA, nov.

Type, *X. staudingeri*.

Proboscis fully developed; palpi porrect, hardly reaching beyond the large truncate corneous frontal prominence with raised edges; eyes large, round; antennæ of male somewhat laminate and minutely ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with decumbent crest; tibiæ slightly fringed with hair; abdomen with dorsal crest at base only and subdorsal scale-fans from basal segment. Fore wing with the apex somewhat produced, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5576. Xantholeuca staudingeri.

Erastria staudingeri, Stndf. Rom. Mém. vi. p. 667, pl. 15. f. 7 (1892); Staud. Cat. Lep. pal. p. 231.

♂. Head, thorax, and abdomen white; patagia yellow at extremity; tarsi ochreous ringed with white. Fore wing silvery white; a broad golden yellow antemedial band with waved edges,

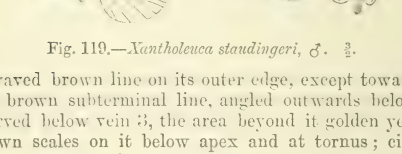

Fig. 119.—*Xantholeuca staudingeri*, ♂. ⅔.

a slight waved brown line on its outer edge, except towards costa; a dentate brown subterminal line, angled outwards below vein 7 and incurved below vein 3, the area beyond it golden yellow with some brown scales on it below apex and at tornus; cilia white, some brown-tipped scales at apex, above middle and at tornus. Hind wing ochreous white slightly tinged with brown; an indistinct diffused brownish postmedial band; cilia white, yellowish at base and brownish at apex; the underside ochreous white tinged with brown, a curved postmedial line.

Hab. Syria, Mardin, 1 ♂. *Exp.* 20 millim.

Genus HICCODA.

	Type.
Hiccoda, Moore, Lep. Atk. p. 134 (1882)	*dosaroides*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about middle of frons and moderately scaled, the 3rd short; frons with truncate prominence with raised edges, its lower part filled in with scales; eyes large, round; antennæ of male minutely ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the mesothorax with slight paired crests, the metathorax with spreading crest; tibiæ moderately fringed with hair; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from

near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3,4 shortly stalked; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the terminal area darker than the ground-colour.
  a. Fore wing with the reniform whitish, completely defined. *plebeia*.
  b. Fore wing with the reniform concolorous, incompletely defined ..... [illegible].
B. Fore wing with the terminal area not darker than the ground-colour.
  a. Fore wing with the postmedial line excurved from below costa to vein 4 ..... [illegible].
  b. Fore wing with the postmedial line slightly angled inwards in discal fold or obsolescent on costal half..... *nigripalpis*.

5577. Hiccoda plebeia.

Acontia plebeia, Butl. Ill. Het. B.M. vii. p. 61, pl. 129. f. 3 (1899); Hmpsn. Moths Ind. ii. p. 319.

Head, thorax, and abdomen greyish tinged with rufous and mixed with dark brown. Fore wing whitish tinged with rufous and irrorated with dark brown, the medial and terminal areas suffused with purplish grey leaving some pale rufous from costa before apex to reniform and on inner half of postmedial area; subbasal line represented by a slight black striga from costa; antemedial line whitish, waved, somewhat oblique; claviform, orbicular, and reniform whitish tinged with rufous and defined by black, the two former small, round, the last with some brown in centre; an indistinct blackish medial line, oblique to the reniform, oblique and sinuous from cell to inner margin; postmedial line double, blackish filled in with whitish, bent outwards below costa, slightly incurved at discal fold, incurved and minutely waved below vein 4; some blackish points beyond it on costa; subterminal line rather diffused, blackish, excurved below vein 7 and at middle and bent outwards to tornus; a terminal series of black points; cilia black mixed with grey. Hind wing fuscous brown; a fine dark terminal line; cilia pale with a dark line through them; the underside whitish irrorated and suffused with dark brown, an indistinct dark discoidal spot.

Ab. 1. Fore wing with the oblique pale area from costa before apex extending to the pale basal area.—Bhután.

Hab. Punjab, 1 ♀, Simla (*Hartford*), 1 ♂, 1 ♀, Dhurmsála (*Hocking*), 2 ♂, 4 ♀ type; Bhután (*Dudgeon*), 2 ♂. *Exp.* 22–26 millim.

5578. Hiccoda eccausta, n. sp. (Plate CLX. fig. 6.)

Head white; palpi blackish at sides; frons with lateral black bars; antennæ blackish; thorax yellow, the metathorax with slight brown marks; pectus, legs, and abdomen ochreous mixed with brown, the fore tibiæ and the tarsi banded with brown.

Fore wing yellow, the costal area tinged with rufous, the costa black to beyond middle; subbasal line represented by a slight black striga from costa, the antemedial line by a sinuous black striga from costa and double striæ from inner margin; orbicular defined by black on outer side, the reniform on inner side, a grey patch between them; postmedial line obsolete on costal area, oblique and waved from vein 4 to inner margin; terminal area suffused with leaden grey, narrowing to apex; a terminal series of black striæ with white points between them at base of cilia which are leaden grey. Hind wing ochreous white tinged with brown; a fine dark terminal line; cilia greyish with a fine brown line through them; the underside greyish, the costal area irrorated with brown, a brown discoidal point and terminal series of striæ.

Hab. Burma, Thayetmyo (*Watson*), 2 ♂, 2 ♀ type. *Exp.* 18–20 millim.

5579. Hiccoda dosaroides.

Hiccoda dosaroides, Moore, Lep. Atk. p. 135 (1882); id. Lep. Ceyl. iii. p. 49, pl. 150. f. 16; Hmpsn. Moths Ind. ii. p. 318.
Naranga diplogramma, Hmpsn. A. M. N. H. (8) i. p. 476 (1908).

Head, thorax, and abdomen ochreous tinged with rufous and irrorated with fuscous; frons with lateral black bars; tegulæ with blackish medial line; fore tibiæ and the tarsi banded with black. Fore wing ochreous tinged with rufous; subbasal line represented by blackish points on costa and in cell; antemedial line very indistinctly double filled in with whitish, interrupted, angled

Fig. 120.—*Hiccoda dosaroides*, ♂. ⅔.

inwards in cell and on vein 1; claviform slightly defined by whitish and black at extremity only; orbicular and reniform very indistinct, pale, the former defined on outer side by black, the latter on inner side, a brown patch between them; postmedial line indistinct, double, rufous filled with whitish, a dark point on the outer line at costa, slightly bent outwards below costa, then minutely waved, excurved to vein 4, then incurved; traces of a rufous subterminal line, excurved at middle and crossed by an oblique dark shade from apex: a terminal series of slight black striæ; cilia with a slight dark line through them, the tips chequered with blackish except towards apex. Hind wing greyish tinged with brown; cilia whitish with faint brown lines at middle and tips; the underside pale ochreous irrorated with brown, a black discoidal point and curved postmedial line.

Hab. Br. E. Africa, Tana R. (*Crawshay*), 1 ♀; Comoro Is., Mayotta (*Meade-Waldo*), 1 ♀ type *diplogramma*; Punjab, Simla (*Harford*), 1 ♂, 1 ♀, Dharmsála (*Hocking*), 5 ♂, 3 ♀ type, Kangra Valley (*Dudgeon*), 1 ♀; Bombay, Kutch, 2 ♂, Deesa (*Nurse*), 1 ♂, Bombay, 1 ♂, Kanara, Gudhali (*T. R. Bell*), 1 ♀; Ceylon, 3 ♂, 1 ♀; Burma, Thayetmyo (*Watson*), 2 ♀. *Exp.* 18–20 millim.

5580. Hiccoda nigripalpis.

Acontia nigripalpis, Wlk. xxxv. 1965 (1866); Hmpsn. Moths Ind. ii. p. 318.
Phothedes frausa, Swinh. P. Z. S. 1886, p. 446; Hmpsn. Moths Ind. ii. p. 306.
Naranga pallida, Hmpsn. Ill. Het. B. M. ix. p. 96, pl. 162. f. 13 (1893).

Head, thorax, and abdomen greyish ochreous mixed with fuscous; palpi blackish behind; tarsi banded with blackish. Fore wing brownish ochreous, the costal area irrorated with fuscous; subbasal line represented by black points on costa and in cell, the antemedial line by double black striæ from costa and cell; orbicular defined by black on outer side, the reniform on inner side, a grey and fuscous patch between them; postmedial line almost obsolete on costal half, below vein 4 indistinctly double filled in with whitish, incurved and minutely waved, a fuscous and greyish patch beyond it near tornus; an oblique diffused blackish fascia from apex; a terminal series of black striæ; cilia greyish mixed with fuscous. Hind wing greyish suffused with brown, the cilia whitish; the underside whitish irrorated with brown.

Ab. 1. Fore wing with the orbicular almost completely defined by black, small, round.

Ab. 2. Fore wing more irrorated with fuscous especially on costal and postmedial areas, the antemedial line entire, indistinctly double, sinuous, the postmedial line entire, bent outwards below costa and angled inwards in discal fold.

Ab. 3. Fore wing bright yellow, the costal area suffused with rufous.

Ab. 4. Fore wing pale yellow, the costal area tinged with rufous; hind wing whiter.

Ab. 5. *pallida*. Similar but the markings of fore wing obsolescent, the orbicular and reniform represented by a few black scales and without dark patch between them.

Hab. Br. E. Africa, Kikuyu (*Crawshay*), 3 ♂; Mashonaland, Salisbury (*Marshall*), 1 ♂; Natal, Durban (*Gooch*), 1 ♀; India (*Mrs. Hamilton*), 1 ♂, 1 ♀ type; Punjab, Manpuri, 1 ♀, Moghal Sarai (*Betton*), 1 ♂, 1 ♀; Bombay, Kutch, 5 ♀, Deesa (*Nurse*), 1 ♂, Bombay, 1 ♀, Bandra (*Jayaker*), 7 ♂, 2 ♀, Mhow (*Swinhoe*), 1 ♂, 1 ♀ type *frausa*; Madras, Belgaum (*Watson*), 6 ♂, 2 ♀, Gooty (*Campbell*), 1 ♂, Cuddapah (*Campbell*), 1 ♀; Ceylon, Puttalam (*Pole*), 2 ♂, Colombo (*Green*), 1 ♀ type *pallida*. *Exp.* 18–20 millim.

Genus PHYLLOPHILA.

Type.
Phyllophila, Guen. Noct. ii. p. 254 (1852)..... *obliterata.*

Proboscis fully developed; palpi obliquely upturned, the 2nd joint hardly reaching to middle of frons, the 3rd short; frons with rounded prominence sometimes slightly roughened at extremity and with corneous plate below it; eyes large, round; antennæ of male minutely ciliated; thorax clothed almost entirely with scales and without crests; tibiæ moderately fringed with hair; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and slightly crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the orbicular and reniform prominently defined by white ..... *numerica.*
B. Fore wing with the orbicular and reniform not defined by white.
  a. Fore wing grey with hardly any brown tinge.
    a^1. Fore wing with the lines not defined by black..... *obliterata.*
    b^1. Fore wing with the lines defined by black ..... *griseola.*
  b. Fore wing suffused with rufous or red-brown.
    a^1. Fore wing with the subterminal line prominent, yellowish ..... *rufescens.*
    b^1. Fore wing with the subterminal line indistinct.
      a^2. Fore wing with the postmedial line excurved from below costa to vein 6, then oblique.
        a^3. Fore wing with the veins of costal area not streaked with brown ..... *flavitermina.*
        b^3. Fore wing with the veins of costal area streaked with brown ..... *torrefacta.*
      b^2. Fore wing with the postmedial line excurved from below costa to vein 4, then oblique..... *obscura.*
      c^2. Fore wing with the postmedial line angled outwards below costa, then oblique ..... *cogela.*

5581. Phyllophila numerica.

Agrophila numerica, Boisd. Gen. & Ind. Meth. p. 175 (1840); Guen. Noct. ii. p. 235, pl. 10. f. 9; Rmbr. Cat. Lép. S. And. pl. 7. f. 8; Staud. Cat. Lep. pal. p. 231.
Erastria ornatula, Christ. Rom. Mém. iii. p. 84, pl. 4. f. 8 (1887).

Head and thorax deep golden brown mixed with white; frons with lateral blackish bars; tarsi brown ringed with white; abdomen white tinged with brown, the basal crest dark brown. Fore wing deep golden brown irrorated with white; subbasal line white, dentate, from costa to submedian fold, a white spot beyond it in cell and short streak above vein 1; antemedial line double, black-brown filled in with white, waved, somewhat oblique; orbicular and reniform with white annuli, their centres defined by black-brown, the former round, almost confluent below with the latter which is constricted at middle and angled inwards on median nervure; postmedial line double, black-brown filled in with white, strongly bent outwards below costa, incurved at discal fold to the reniform, incurved below vein 4 to lower edge of reniform, then waved, some white points beyond it on costa; subterminal

line white, minutely dentate, angled inwards in discal fold and twice in submedian interspace; a dentate white terminal line defining slight blackish lunules; cilia black-brown strongly interlined with white. Hind wing whitish suffused with pale yellow-brown; cilia yellow-brown at base, white at tips; the underside whitish suffused and irrorated with yellow-brown, a dark discoidal spot, diffused curved postmedial line defined by whitish on outer side, and terminal series of slight dark lunules defined by white on inner side.

Ab. 1. Fore wing with the orbicular nearer the antemedial line and widely separated from the reniform, which is more constricted at middle, less angled inwards at median nervure and separated from the postmedial line.—Spain.

Ab. 2. *ornatula*. Fore wing with the antemedial line more acutely angled inwards in cell and outwards in submedian fold, the orbicular elliptical and confluent with the antemedial line, the reniform with its extremities produced outwards, the postmedial line more acutely angled outwards below costa, then more regular and less incurved at discal and submedian folds.—Algeria, Persia, W. Turkestan.

Hab. S. France; Spain, Aragon, Castile, Cuenca (*Chapman*); Corsica, Leech Coll.; Algeria; N. Persia, Kukulab, 1 ♂; W. Turkestan, Turcomania. *Exp.* 28–32 millim.

Larva. Goossens, Ann. Soc. Ent. Fr. 1871, p. 291, pl. 4. f. 6; Kirby, Butt. & Moths Eur. p. 285; Hffm. Raup. p. 143.

Yellowish green with yellowish white spots, the lines white. Food-plant: *Santolina*.

5582. Phyllophila obliterata.

Anthophila obliterata, Rmbr. Ann. Soc. Ent. Fr. 1833, p. 27, pl. 2. f. 17; Mill. Icones. iii. pl. 103. ff. 13–15; Staud. Cat. Lep. pal. p. 220.
Anthophila wimmerii, Treit. Eur. Schmett. x. 2, p. 148 (1835); Frr. Neue Beitr. pl. 162. ff. 4, 5; Fisch. v. Röslerst. Schmett. p. 79. pl. 36. ff. 3 *a–c*; Dup. Lép. Fr. Suppl. iii. p. 516, pl. 44. f. 2; Herr.-Schäff. Eur. Schmett., Noct. f. 255.
Anthophila recta, Ev. Faun. Volg. Ur. p. 338 (1844).
Phyllophila cretacea, Butl. Ill. Het. B.M. iii. p. 28, pl. 47. f. 11 (1879).

Head, thorax, and abdomen white mixed with some reddish brown, the palpi and legs browner. Fore wing white suffused

Fig. 121.—*Phyllophila obliterata*, ♂. ½.

with reddish brown; subbasal line represented by a faint whitish striga from costa with some dark brown beyond it in cell; antemedial line represented by an indistinct diffused whitish band, oblique below the cell; orbicular a slight dark brown point; the

reniform represented by two small dark brown spots, the lower rather larger; postmedial line indistinct, whitish, slightly bent outwards below costa, incurved below vein 4 and forming an oblique band towards inner margin, some slight white points beyond it on costa; subterminal line white, angled outwards at vein 7, then forming an oblique band bent outwards to tornus, a terminal series of slight black points; cilia red-brown chequered with white at tips. Hind wing white slightly tinged with red-brown; the underside white irrorated with red-brown, a slight discoidal spot.

Ab. 1. *cretacea*. Rather greyer; fore wing with oblique dark band before the postmedial line from vein 4 to inner margin.

Hab. Austria, Tirol; Corsica; Italy, Leech Coll.; Hungary; Balkans, Zeller Coll.; Russia, Zeller Coll.; Armenia, Caucasus, 2 ♂, Zeller Coll.; Persia, 1 ♂, D'Ennmich Coll.; W. Turkestan, Turcomania, Ferghana: W. Siberia, Altai; E. Turkestan, 1 li; E. Siberia, Amurland, 1 ♂, Ussuri; Japan, Myanoshita (*Ferburg*), 1 ♀, Yokohama (*Jonas, Pryer*), 1 ♂, 3 ♀ type *cretacea*; Corea, Gensan (*Ito, Leech*), 1 ♂, 1 ♀; C. China, Fokien (*de la Garde*), 1 ♂, Kiukiang (*Pryer*), 1 ♀, Chang-yang (*Pratt*), 1 ♀. *Exp.* 24–28 millim.

Larva. Kirby, Butt. & Moths Eur. p. 284; Hffm. Raup. p. 142.

Green; dorsal line dark; lateral line white. Food-plants: *Artemisia cærulescens* and *campestris*. 6.

5583. Phyllophila griseola.

Thalpochares griseola, Feld. Reis. Nov. pl. 108. f. 10 (1874), ♂.
Taraeha leucosigmata, Hmpsn. Ann. S. Afr. Mus. ii. p. 390 (1902), ♀.

♂. Head and thorax grey tinged with reddish brown; tarsi black-brown slightly ringed with white; abdomen ochreous white irrorated with brown. Fore wing grey tinged with red-brown and irrorated with black, the terminal area rufous; subbasal line represented by a black striga from costa; antemedial line slight, black, oblique, angled outwards on subcostal and median nervures, then sinuous; orbicular absent; reniform very faint, pale, angled inwards on median nervure; a sinuous blackish line from lower angle of cell to inner margin with brown suffusion between it and the postmedial line, which is rather indistinct, double filled in with whitish, bent outwards below costa, minutely waved to vein 4, then incurved; subterminal line faint, pale, on inner area forming a diffused patch extending to postmedial line; a terminal series of slight dark points; cilia brown mixed with grey. Hind wing reddish brown with indistinct postmedial line excurved beyond the cell, diffused subterminal band and terminal series of points; cilia whitish at tips; the underside whitish tinged and irrorated with brown, the postmedial line as above.

♀. Fore wing with the basal area rather whiter, the lines strong, black, the orbicular white defined by black, small, round, the reniform white defined at sides by black, quadrate and strongly

angled inwards on median nervure, the subterminal line prominent, white.

Hab. Cape Colony, Transkei (*Miss F. Barrett*), 1 ♂ type *leucosigmata*, Simons Town (*de la Garde*), 4 ♂, 2 ♀, Capetown (*Trimen*), 1 ♀. *Exp.* 34–36 millim.

5584. Phyllophila rufescens, n. sp. (Plate CLX. fig. 7.)

Tarache griseola, Hmpsn. Ann. S. Afr. Mus. ii. p. 391 (nec Feld.).

♂. Head and thorax rufous; abdomen whitish slightly tinged with rufous. Fore wing pale rufous with slight dark irroration, the terminal area bright rufous; antemedial line hardly traceable, double, waved; a slight blackish mark at lower angle of cell with traces of a diffused oblique line from it to inner margin; postmedial line indistinct, double, faintly filled in with whitish, excurved from costa to vein 4, then slightly incurved; subterminal line ill-defined, yellowish white, nearly straight, then bent outwards to tornus; a terminal series of blackish points; cilia red-brown mixed with whitish and with brown line through them. Hind wing whitish suffused with red-brown especially on terminal area; an indistinct curved postmedial line; cilia whitish mixed with rufous; the underside yellowish white irrorated with red-brown, the postmedial line ill-defined.

♀. Fore wing with more prominent black irroration, the subterminal line prominent, yellow.

Hab. Cape Colony, Plettenburg Bay, 1 ♂ type, Knysna, 1 ♀, Capetown, Table Mt. (*Meade-Waldo*), 1 ♀. *Exp.* 30 millim.

5585. Phyllophila flavitermina. (Plate CLX. fig. 8.)

Tarache flavitermina, Hmpsn. Ann. S. Afr. Mus. ii. p. 391 (1902).

♂. Head and thorax yellowish white, the latter with dark brown dorsal streak; palpi at tips and antennæ brown; pectus and legs suffused with brown, the tarsi slightly ringed with white; abdomen whitish dorsally suffused with brown. Fore wing yellowish white suffused with rufous except the costal area to postmedial line and the basal inner area, and with slight dark irroration; subbasal and antemedial lines absent; orbicular a black point; reniform defined by a few black scales, small, elliptical, an indistinct obliquely incurved line from it to inner margin; postmedial line red-brown, obliquely excurved from costa to vein 6, then oblique and slightly angled inwards in submedian fold, a dark red-brown band from apex to postmedial line at vein 6 and thence on its outer side to inner margin; subterminal line yellow defined on inner side by red-brown, minutely dentate, oblique below vein 6 and slightly angled inwards in submedian fold; a terminal series of black points; cilia red-brown and yellowish, blackish at apex. Hind wing yellowish white slightly tinged with red-brown; cilia

yellowish white; the underside yellowish white, the costal and terminal areas irrorated with brown, a small brown discoidal spot.

♀. Head and thorax dark brown mixed with grey; abdomen dark brown; fore wing brown tinged with grey, the terminal half suffused with rufous, the markings indistinct especially the oblique dark band from apex; hind wing strongly suffused with brown, the underside grey irrorated with brown, an indistinct postmedial line.

Hab. Cape Colony, Annshaw (*Miss F. Barratt*), 2 ♂ type, Zuurberg (*Bairstow*), 1 ♀. *Exp.* 26 millim.

5586. Phyllophila torrefacta. (Plate CLX. fig. 9.)

Tavache torrefacta, Dist. A. M. N. H. (7) i. p. 223 (1898).

Head and thorax red-brown tinged with greyish; palpi white, brown at tips; pectus and legs white, the tibiæ and tarsi suffused with brown; abdomen yellowish tinged with rufous, the ventral surface white. Fore wing yellow suffused with rufous except the basal and costal areas and the medial part of terminal area, the veins and discal fold streaked with rufous; antemedial line rufous, rather irregular and diffused, strongly angled outwards on median nervure and oblique towards costa and inner margin; orbicular a small brown spot, the reniform a slight discoidal lunule; a fine rufous medial line, oblique from costa to just beyond the cell where it is excurved, then obliquely incurved; postmedial line rufous, strongly excurved from costa to vein 6, then very oblique and incurved in submedian interspace, met at vein 6 by an oblique diffused rufous fascia from apex; subterminal line yellow defined on inner side by rufous, minutely dentate, excurved below vein 7, then oblique; a rufous terminal line; cilia yellow with a rufous line through them. Hind wing yellow suffused with rufous, the cilia yellower; the underside yellow slightly irrorated with red-brown, a small discoidal spot and traces of a postmedial line excurved beyond the cell.

Ab. 1. Fore wing darker and more suffused with greyish brown —Br. E. Africa.

Hab. Br. E. Africa, Eb Urru (*Betton*), 3 ♀, Kiliman'jaro (*Sjöstedt*), 1 ♂; Transvaal, Johannesburg (*Cooke*, *Ross*), 1 ♂, 1 ♀. *Exp.* 26 millim.

*5587. Phyllophila obscura. (Plate CLX. fig. 10.)

Metachrostis obscura, Hmpsn. Moths Ind. ii. p. 326 (1894).

♂. Head, thorax, and abdomen grey-brown with slight dark irroration; tarsi brown with pale rings. Fore wing glossy grey-brown with a reddish tinge and dark irroration; subbasal line represented by a dark point on costa; antemedial line indistinct

double, oblique, waved; orbicular and reniform obsolete; an obscure medial shade, oblique from costa to lower angle of cell, then on inner side of the postmedial line, which is indistinct, double, bent outwards below costa and oblique below vein 4, some slight dark points beyond it on the veins; subterminal line greyish defined on inner side by dark suffusion, excurved below vein 7 and at middle; a terminal series of dark points. Hind wing glossy grey-brown with a reddish tinge; the underside grey irrorated with brown, a dark discoidal spot and curved postmedial line.

Hab. Assam, Naga Hills (*Doherty*), type† ♂ in Coll. Rothschild. *Exp.* 26 millim.

5588. **Phyllophila cogela.** (Plate CLX. fig. 11.)

Erastria cogela, Schaus, Trans. Am. Ent. Soc. xxx. p. 161 (1904).

♀. Head and thorax rufous mixed with whitish; thorax with lateral black bars; abdomen greyish irrorated with red-brown. Fore wing greyish irrorated with olive-brown; the costa red irrorated with white scales to near apex; antemedial line double filled in with greyish, slightly waved and somewhat excurved at middle; orbicular and reniform with indistinct whitish annuli, the former small, round, the latter with its lower part filled in with rufous, white, and black scales; postmedial line double, brown filled in with whitish and with an oblique olive-brown shade on its inner side, crossing to outer side at costa, bent outwards below costa and oblique below vein 7, the area beyond it whitish to the subterminal line, which is pale, slightly defined by brown on inner side, excurved at middle; a terminal red-brown line; cilia grey mixed with brown and with a dark line at middle. Hind wing grey suffused and irrorated with brown; a curved postmedial line defined by whitish on outer side; a fine brown terminal line; cilia whitish with brown line at middle and brown tips; the underside whitish thickly irrorated with red, an indistinct diffused red postmedial line.

Hab. Brazil, Castro Paraña (*D. Jones*), 1 ♀. *Exp.* 28 millim.

Genus ŒDICODIA, nov.

Type, *Œ. violascens*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about middle of frons and moderately [illegible] in front, the 3rd short. Frons with large round corneous prominence with raised edges and corneous process in middle followed out in [illegible]; antennæ of [illegible] simple; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and hardly crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5589. Œdicodia violascens, n. sp.

♀. Head, thorax, and abdomen purplish grey tinged with brown and mixed with some rufous and blackish scales. Fore wing purplish grey tinged with brown and thickly irrorated with black-brown; antemedial line double filled in with grey, waved, strongly incurved at vein 1; reniform a slight whitish bar defined by diffused black; an indistinct curved dark medial shade; postmedial

Fig. 122.—*Œdicodia violascens*, ♀. ¾.

line indistinct, double filled in with grey, oblique from below costa to vein 6, then waved; traces of a fine pale subterminal line excurved below costa and at middle; the extremities of the veins with small wedge-shaped black spots. Hind wing greyish suffused with brown; the underside whitish tinged with brown and irrorated with dark brown.

Hab. Br. E. Africa, Taveta (*Rogers*), 1 ♀ type. *Exp.* 20 millim.

Genus CRETONIA.

	Type.
Cretonia, Wlk. xxxv. 1735 (1866)	*platyphæella.*
Swinhoea, Hmpsn. Moths Ind. ii. p. 324 (1894)	*vegeta.*

Proboscis fully developed; palpi upturned, the 2nd joint typically reaching to vertex of head and moderately scaled, the 3rd moderate; frons with rounded prominence; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales, the mesothorax with paired crests, the metathorax with depressed crest; tibiæ moderately fringed with hair; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 5 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I (*Swinhoea*). Palpi with the 2nd joint reaching to far above vertex of head and rather broadly fringed with scales in front towards extremity, the 3rd very long and acuminate.

5590. Cretonia vegeta.

Spadix vegetus, Swinh. P. Z. S. 1885, p. 475, pl. 28. f. 14; Hmpsn. Moths Ind. ii. p. 325.

Head and thorax red-brown with a slight greyish tinge; palpi, pectus, legs, and abdomen greyish suffused with fuscous. Fore

wing with the basal area greyish suffused with rufous, the rest of wing glossy red-brown; a slight curved subbasal line from costa to submedian fold; antemedial line dark brown defined on inner side by pinkish white, oblique, sinuous, a small black spot before it above inner margin, some darker suffusion beyond it at middle; orbicular absent; reniform very faintly defined by a few whitish and black scales; medial line dark, oblique from costa to lower angle of cell, then incurved; postmedial line double, the outer line

Fig. 123.—*Cretonia vegeta*, ♂. ¾.

indistinct, oblique from costa to vein 7, then slightly oblique, minutely waved and somewhat incurved at submedian fold, some whitish points beyond it on costa, a diffused dark subterminal shade; a fine dark terminal line. Hind wing grey suffused with fuscous brown, the cilia paler with a slight brown line through them; the underside whitish suffused and thickly irrorated with fuscous brown, a dark discoidal lunule and indistinct sinuous postmedial line.

Ab. 1. Fore wing with the black spot before antemedial line obsolete.

Hab. Punjab, 2 ♀, Allahabad, 3 ♂, 1 ♀; Bengal, Calcutta, 1 ♂; Bombay (*Swinhoe*), 2 ♀ type, Bandra (*Jayaker*), 1 ♀, Mhow (*Swinhoe*), 1 ♀; Ceylon, Puttalam (*Pole*), 4 ♀; Burma, Rangoon, 1 ♀, Myingyan (*Watson*), 1 ♀; Andamans (*Rogers*), 1 ♂, 1 ♀; Dutch N. Guinea, Kapaur (*Doherty*), 1 ♀; D'Entrecasteaux Is., Fergusson I. (*Meek*), 1 ♂; Louisiades, St. Aignan (*Meek*), 1 ♂, 1 ♀. *Exp.* 22–24 millim.

Sect. II. (*Cretonia*). Palpi with the 2nd joint reaching to vertex of head and not so broadly scaled, the 3rd moderate and blunter.

A. Fore wing brown.
  a. Fore wing with the reniform not filled in with black.
    *a*¹. Fore wing with the postmedial line not dentate on inner area ..... *ethiopica*.
    *b*¹. Fore wing with the postmedial line dentate on inner area ..... [illegible]
  b. Fore wing with the reniform filled in with black ..... *atrisigna*.
B. Fore wing ochreous white ..... *floccifera*.

5591. Cretonia ethiopica, n. sp. (Plate CLX. fig. 12.)

Head and thorax red-brown; antennæ blackish; palpi, pectus, legs, and abdomen greyish suffused with fuscous brown, the tarsi

blackish ringed with white. Fore wing purplish red-brown with a slight greyish tinge; a faint pale curved subbasal line from costa to submedian fold; antemedial line whitish defined on outer side by dark brown and with a patch of black-brown suffusion beyond it at middle, oblique, sinuous, with a black spot before it above inner margin; orbicular absent; reniform with whitish annulus defined by black except at middle of outer side, small; an oblique dark bar from middle of costa to reniform and slight incurved line from lower extremity of reniform to inner margin; postmedial line fine, double filled in with white, excurved below costa and at middle and slightly above inner margin, some white points beyond it on costa; subterminal line defined on inner side by a black-brown band with some whitish scales on its inner edge which is incurved below costa, angled inwards at discal fold to near postmedial line and narrowing to inner margin, its outer edge excurved below vein 7 and at middle and incurved below vein 3. Hind wing white tinged with brown; the underside white irrorated with fuscous brown, a blackish discoidal lunule and diffused sinuous subterminal band almost obsolete on inner half.

Ab. 1. Fore wing with the black spot before antemedial line obsolete.

Hab. Abyssinia, Atbara (*Gerrard*), 1 ♀; Br. E. Africa, Taveta (*Rogers*), 3 ♀; Mashonaland, Salisbury (*Marshall*), 2 ♂, 3 ♀ type; Bechuanaland, N'Gami (*Lugard*), 1 ♀. *Exp.* 28 millim.

5592. Cretonia platyphæella.

Cretonia platyphæella, Wlk. xxxv. 1736 (1866).

♂. Head and thorax fuscous brown with a greyish tinge, the patagia faintly tinged with rufous; pectus, legs, and abdomen fuscous brown tinged with grey, the tarsi ringed with white. Fore

Fig. 124.—*Cretonia platyphæella*, ♂. ⅔.

wing with the basal area pale reddish brown tinged with greyish fuscous, the rest of wing dark greyish fuscous with a cupreous gloss; a faint pale subbasal line from costa to submedian fold: antemedial line whitish defined on outer side by black and with some black-brown suffusion beyond it at middle, slightly angled outwards at subcostal nervure, then incurved and excurved above inner margin; reniform small figure-of-eight shaped, interrupted at middle, its upper and lower parts with whitish annuli; a faint

oblique dark striga from middle of costa to reniform; postmedial line black with a narrow irregular greyish band on its outer side, excurved below costa, slightly incurved at discal fold, then excurved and minutely dentate, some whitish points beyond it on costa; a fine black terminal line. Hind wing greyish suffused with fuscous brown; the underside with blackish discoidal striga and faint diffused curved postmedial line.

Hab. Sierra Leone (*Morgan*), 1 ♂ type; S. Nigeria, Old Calabar (*Sampson*), 1 ♂. *Exp.* 20 millim.

5593. Cretonia atrisigna, n. sp. (Plate CLX. fig. 13.)

♂. Head, thorax, and abdomen greyish tinged and irrorated with red-brown; palpi, pectus, legs, and ventral surface of abdomen whitish suffused with dark brown, the tibiæ and tarsi ringed with white. Fore wing pale rufous thickly irrorated with dark brown; a dark subbasal point on costa; antemedial line indistinct, double, sinuous; a black point in middle of cell and small triangular black discoidal spot; medial line slight, dark, very slightly angled outwards below costa, then incurved and with blackish suffusion beyond it below discal fold; postmedial line dark, excurved below costa and slightly angled inwards in submedian fold, some minute whitish points beyond it on costa; the apical area with some dark suffusion; subterminal line very faint, whitish, excurved at middle; a terminal series of minute black striæ: cilia whitish at tips. Hind wing whitish suffused with brown, the cilia paler; the underside white thickly irrorated with brown, a slight discoidal spot.

♀. Much greyer and without any rufous tinge; fore wing with the white subterminal line distinct: hind wing fuscous brown.

Hab. Br. E. Africa, Taveta (*Rogers*), 1 ♂, 1 ♀ type. *Exp.* 18 millim.

5594. Cretonia floccifera. (Plate CLX. fig. 14.)

Barasa floccifera, Hmpsn. Moths Ind. iv. p. 525 (1896).

♂. Head, thorax, and abdomen ochreous white faintly tinged with red-brown; palpi blackish except at tips. Fore wing ochreous white very faintly tinged with brown; subbasal line represented by a blackish striga from costa; antemedial line with blackish striga from costa, then hardly traceable, oblique, sinuous; some raised blackish scales on discocellulars and a striga above from costa; postmedial line very indistinct with a few raised black scales on it, bent outwards below costa, incurved at discal fold and below vein 4; the termen and cilia with some black scales. Hind wing ochreous white with some brownish hair on inner margin; the underside slightly irrorated with brown, a brownish postmedial line excurved from costa to vein 4 and ending at termen.

Hab. Bhután (*Dudgeon*), 2 ♂ type. *Exp.* 26 millim.

Genus NEOCHROSTIS.

Type.

Neochrostis, Hmpsn. Ann. S. Afr. Mus. ii. p. 406 (1902) ..... *diplogramma*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and moderately scaled, the 3rd moderate; frons with pointed beak-shaped prominence with somewhat trifid process below it and the frons produced to points at sides; eyes large, round; antennæ of male somewhat laminate and minutely ciliated; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved, crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5595. Neochrostis diplogramma.

Neochrostis diplogramma, Hmpsn. Ann. S. Afr. Mus. ii. p. 407 (1902).

♂. Head and thorax red-brown; palpi whitish, dark at tips; the tegulæ with slight dark medial line; pectus and legs pale rufous, the tarsi blackish with pale rings; abdomen pale rufous tinged with brown, the ventral surface whitish. Fore wing rufous suffused with fuscous; subbasal line represented by slight double dark points below costa and cell; antemedial line double, black,

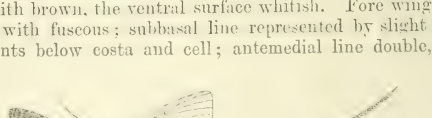

Fig. 125.—*Neochrostis diplogramma*, ♂. ½.

evenly curved; orbicular small, round, defined by black and with blackish point in centre; reniform rufous defined by black and with some brown in centre, narrow, strongly angled inwards on median nervure to a spot obliquely placed below orbicular; a black medial shade, oblique to reniform and incurved below the cell; postmedial line double, black, dilated at costa, excurved below costa, slightly angled inwards at discal fold and incurved below vein 4, some yellow points beyond it on costa and a black shade from below costa to vein 4, angled outwards at veins 6 and 4; subterminal line yellowish, very slightly excurved below vein 7 and at middle; a slightly waved black terminal line. Hind wing orange with slightly brown streaks in cell, on vein 1, and above inner margin; a small discoidal spot and sinuous subterminal line with dark streaks beyond it on the veins; a black terminal line; cilia brown with a slight yellow line at base. Underside of fore wing orange tinged with brown, a dark discoidal spot and curved

postmedial band, the terminal area dark with subterminal yellow streaks on the veins; hind wing orange with black discoidal point, slight curved postmedial line, and rather maculate subterminal line.

Hab. Transvaal (*Ross*), 1 ♂ type. *Exp.* 32 millim.

Genus OZARBA.

	Type.
Ozarba, Wlk. xxxii. 684 (1865)	*punctigera*.
Acontiola, Staud. Iris, xii. p. 382 (1899)	*sancta*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and moderately scaled, the 3rd rather long; tongue smooth; eyes large, round; antennæ of male typically minutely ciliated; thorax clothed almost entirely with scales and without crests; tibiæ typically slightly fringed with hair; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and slightly crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Antennæ of male strongly laminate, minutely uniserrate towards apex.

A. Fore wing with small black spot on postmedial line at discal fold ..... *arenacea*.

B. Fore wing without small black spot on postmedial line at discal fold.

a. Fore wing pale rufous more or less suffused with dark brown ..... *nivalbida*.

b. Fore wing purplish grey tinged in parts with rufous and irrorated with fuscous ..... *varia*.

5596. Ozarba arenacea.

Ozarba arenacea, Hmpsn. Ill. Het. B.M. ix. p. 97, pl. 162. f. 3 (1893); id. Moths Ind. ii. p. 331.

♀. Head and thorax bright rufous mixed with greyish and with a few dark scales; tegulæ with black line at base and streak at middle; pectus, legs, and abdomen greyish suffused with fuscous brown, the fore tarsi black ringed with white. Fore wing greyish suffused with rufous; a dark point at base and subbasal dark points on costa and in cell; antemedial line indistinct, double, minutely waved, oblique from costa to submedian fold where it is angled, blackish points beyond it in and below cell; reniform with rather V-shaped black and white bar on inner side, faintly defined on outer; medial line oblique and with dark band beyond it from costa to median nervure before the reniform, then sinuous; postmedial line indistinct, double, with dark spot at costa, bent outwards below costa, then minutely waved, incurved below vein 4, a small black spot on its outer edge at discal fold and a blackish patch on costal area with some rufous points on costa; subterminal line indistinct, pale, defined on inner side by blackish points from costal patch to inner margin and on outer by slight dark suffusion, somewhat

excurved at middle and incurved below vein 3; a terminal series of black points. Hind wing fuscous brown with a greyish tinge; a terminal series of black points; the underside greyish tinged with rufous and irrorated with fuscous, a black discoidal lunule, ante- and postmedial lines, the latter waved towards costa, and diffused subterminal band.

Hab. Ceylon (*Green*), 1 ♀ type. *Exp.* 30 millim.

5597. Ozarba destituta.

Taraehe destituta, Moore, Lep. Ceyl. iii. p. 48, pl. 150. f. 6 (1884); Hmpsn. Moths Ind. ii. p. 327.

Ozarba fusca, Hmpsn. Ill. Het. B.M. ix. p. 97, pl. 162. f. 9 (1893); id. Moths Ind. ii. p. 331.

Head, thorax, and abdomen pale rufous slightly irrorated with fuscous; palpi with some black at sides; pectus, legs, and ventral surface of abdomen whitish tinged with brown, the fore tibiæ and the tarsi black ringed with whitish. Fore wing pale rufous slightly irrorated with brown; subbasal line double, sinuous, from costa to submedian fold; antemedial line irregularly sinuous and somewhat oblique, double from costa to median nervure and with dark band between it and the subbasal line; a slight black point in middle of cell; reniform whitish defined by black and with some brown in

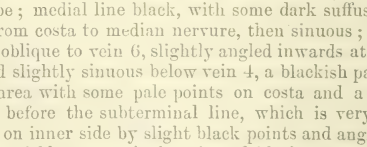

Fig. 126.—*Ozarba destituta*, ♂. $\frac{3}{2}$.

centre, narrow, oblique elliptical, its lower extremity constricted to a minute lobe; medial line black, with some dark suffusion beyond it, oblique from costa to median nervure, then sinuous; postmedial line double, oblique to vein 6, slightly angled inwards at discal fold, incurved and slightly sinuous below vein 4, a blackish patch beyond it on costal area with some pale points on costa and a black spot below costa before the subterminal line, which is very indistinct, pale defined on inner side by slight black points and angled inwards in submedian fold; a terminal series of black points; cilia with some fuscous at tips at apex, middle, and above tornus. Hind wing fuscous brown, the cilia paler; the underside ochreous white irrorated with brown, a small discoidal spot and minutely waved postmedial, subterminal, and terminal lines.

Ab. 1. Fore wing with the whole medial area suffused with fuscous.

Ab. 2. Fore wing with the dark suffusion beyond subbasal and medial lines obsolete.

Hab. Madras, Nilgiris (*Cardew*, *Hampson*), 3 ♂, Palnis (*Campbell*), 1 ♀; Ceylon (*Templeton*, *Nietner*), 3 ♂ type, Puttalam (*Pole*), 1 ♀, Pundaloya (*Green*), 1 ♀ type *fusca*. *Exp.* 22–24 millim.

5598. Ozarba excisa.

Ozarba excisa, Hmpsn. Ill. Het. B.M. viii. p. 76, pl. 145. f. 21 (1891); id. Moths Ind. ii. p. 332.

♀. Head and thorax grey mixed with rufous; palpi black in front, pink behind; tegulæ with some black at base; fore tibiæ and tarsi black ringed with pink; abdomen grey suffused with fuscous. Fore wing grey tinged in parts with rufous especially on medial and terminal areas and irrorated with fuscous, the costal edge pink; subbasal line hardly traceable, double, waved, from costa to vein 1; antemedial line indistinct, double, minutely waved, oblique from costa to below the cell; orbicular a whitish point with a few black scales round it, the reniform an oblique black bar with some ochreous scales on its outer edge; medial line slight, oblique to median nervure, then sinuous; postmedial line indistinctly double, minutely waved, oblique from costa to vein 6 and incurved below vein 4, the costa beyond it with alternating black and pinkish points; subterminal line indistinct, whitish, a black spot before it below costa, then rather punctiform and defined on inner side by black points. Hind wing fuscous brown, the cilia pale rufous with some fuscous at base and tips. Underside of fore wing fuscous, the costa pinkish, the veins of terminal area streaked with white; hind wing whitish thickly irrorated with fuscous, a black discoidal spot, rather diffused postmedial and subterminal lines, the latter with whitish spots beyond it, a fine waved black terminal line.

Hab. Madras, Nilgiris (*Lindsay*), 1 ♀ type. *Exp.* 28 millim.

Sect. II. Antennæ of male minutely ciliated.

A. Hind tibiæ of male fringed on both sides with long hair.

5599. Ozarba chinensis.

Metachrostis chinensis, Leech, Trans. Ent. Soc. 1900, p. 156.

Head, thorax, and abdomen whitish mixed with fuscous brown, the lower part of frons, pectus, legs, and ventral surface of abdomen white; antennæ ringed with black; the fore tibiæ and the tarsi

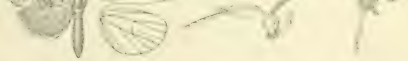

Fig. 127.—*Ozarba chinensis*, ♂. ¾.

blackish ringed with white. Fore wing brownish white irrorated with black, the medial part of costa, a triangular patch from before the reniform to inner margin, a patch beyond the reniform and another on postmedial costal area grey suffused with black; ante-

medial line very indistinct, double, inwardly oblique, slightly angled outwards below costa and in submedian fold; reniform white slightly defined by black and with fuscous centre, a narrow bar with its lower extremity produced, a black streak beyond it in discal fold to the postmedial line, which is double filled in with white and defined by white on inner side, oblique from costa to vein 6 where it is angled outwards, incurved below vein 4 to lower edge of reniform; subterminal line white defined on outer side by black and on inner by fuscous, incurved below vein 3; a black terminal line; cilia whitish mixed with black. Hind wing whitish suffused with brown, the cilia paler; the underside whitish irrorated with fuscous, a faint discoidal point, traces of curved postmedial and subterminal lines, and a fine dark terminal line.

Ab. 1. Fore wing with the ground-colour rather whiter.—Wynád.

Hab. C. China, Ship-y-Shán, 1 ♂, 1 ♀ type; Madras, Wynád (*Cardew*), 2 ♂. *Exp.* 18–20 millim.

B. Hind tibiæ of male normal.
  a. Fore wing with oblique whitish postmedial band.
    a^1. Hind wing orange ..... *orthozona.*
    b^1. Hind wing brown.
      a^2. Fore wing with the postmedial band not expanding below costa..... *absessa.*
      b^2. Fore wing with the postmedial band slightly expanding below costa.
        a^3. Fore wing with double dark line on the postmedial band ..... *domina.*
        b^3. Fore wing with single dark line near outer edge of the postmedial band..... *transversa.*
        c^3. Fore wing with red-brown shade on outer part of postmedial band ..... *rectifascia.*
  b. Fore wing without oblique whitish postmedial band.
    a^1. Fore wing with the postmedial line oblique throughout ..... *camptozona.*
    b^1. Fore wing with the postmedial line angled outwards below costa, then oblique.
      a^2. Hind wing orange.
        a^3. Fore wing with the basal area darker than the terminal area..... *madanda.*
        b^3. Fore wing with the basal area paler than the terminal area.
          a^4. Fore wing with the terminal area grey suffused with dark brown..... *chrysaspis.*
          b^4. Fore wing with the terminal area deep rufous.
            a^5. Fore wing without black patch on medial area in submedian interspace ..... *microcycla.*
            b^5. Fore wing with black patch on medial area in submedian interspace ..... *accincta.*
      b^2. Hind wing not orange.
        a^3. Fore wing with the postmedial line not bent outwards to inner margin.
          a^4. Fore wing with the antemedial line slightly incurved..... *punctigera.*
          b^4. Fore wing with the antemedial line waved ... *lepida.*
        b^3. Fore wing with the postmedial line bent outwards to inner margin.

a^4. Fore wing without pale streaks on the veins.
a^5. Fore wing with black patch on medial area above vein 1 ..... *corniculans.*
b^5. Fore wing with the outer part of medial area blackish except towards costa ..... *megaptaga.*
c^5. Fore wing without blackish patch on medial area ..... *sciaptera.*
b^4. Fore wing with pale streaks on the veins ... *mallarba.*
c^1. Fore wing with the postmedial line angled outwards at vein 6, then strongly incurved.
a^2. Fore wing with triangular black mark beyond the reniform ..... *hypenoides.*
b^2. Fore wing without triangular black mark beyond the reniform ..... *uberosa.*
d^1. Fore wing with the postmedial line angled outwards at vein 6 and incurved below vein 5.
a^2. Fore wing pale greenish ..... *glaucescens.*
b^2. Fore wing not greenish.
a^3. Fore wing with dark medial shade from costa to below cell ..... *sciaphora.*
b^3. Fore wing with postmedial black patch on costa *costata.*
c^3. Fore wing without dark medial or postmedial patches on costal area.
a^4. Fore wing with the postmedial line not waved below vein 4.
a^5. Fore wing grey suffused with brown ..... *excurvata.*
b^5. Fore wing with the basal half greyish, the terminal half rufous ..... *honesta.*
b^4. Fore wing with the postmedial line waved below vein 4 ..... *sinuata.*
e^1. Fore wing with the postmedial line excurved from below costa to vein 4, then incurved, sometimes almost or quite obsolete.
a^2. Hind wing deep orange.
a^3. Hind wing without blackish fascia on inner margin ..... *plumbipicta.*
b^3. Hind wing with blackish fascia on inner margin.
a^4. Fore wing with white terminal line ..... *hemichrysea.*
b^4. Fore wing without white terminal line.
a^5. Hind wing without broad dark terminal band ..... *cyanopasta.*
b^5. Hind wing with broad dark terminal band.
a^6. Fore wing with the markings not defined by white scales ..... *chrysiplaga.*
b^6. Fore wing with the markings strongly defined by white scales ..... *metachrysea.*
b^2. Hind wing with more or less orange-yellow.
a^3. Hind wing without brown suffusion..... *contempta.*
b^3. Hind wing yellow irrorated with brown..... *flavescens.*
c^3. Hind wing with the yellow confined to a patch on disk.
a^4. Fore wing with the postmedial area yellowish tinged with rufous..... *davidiscata.*
b^4. Fore wing with the postmedial line on a yellowish white band ..... *ochrozona.*
c^2. Hind wing without yellow or orange.
a^3. Fore wing not green.
a^4. Fore wing with the basal area darker than the postmedial area.
a^5. Fore wing with the postmedial area white *hemiphaea.*

b^5. Fore wing with the postmedial area grey.
a^6. Fore wing with the outer edge of the dark area slightly angled inwards below the cell.
a^7. Fore wing with the basal area deep chocolate-red ..... *semirubra.*
b^7. Fore wing with the basal area blackbrown ..... *homiochra.*
b^6. Fore wing with the outer edge of the dark area oblique from costa to lower angle of cell, then erect ..... *semipurpurea.*
c^5. Fore wing with the postmedial area tinged with rufous.
a^6. Fore wing with the outer edge of the dark area slightly angled inwards below the cell ..... *consanguis.*
b^6. Fore wing with the outer edge of the dark area oblique from costa to lower angle of cell, then erect ..... *hemimelæna.*
b^4. Fore wing with the basal area paler than the postmedial area..... *bipartita.*
c^4. Fore wing with the basal area concolorous with the postmedial area.
a^5. Fore wing with the reniform not round or white.
a^6. Fore wing pale rufous ..... *socotrana.*
b^6. Fore wing pale pink suffused with brown ..... *roseacea.*
c^6. Fore wing greyish suffused with dark red-brown ..... *isocrampta.*
d^6. Fore wing fuscous tinged with grey and irrorated with black ..... *platycrot.*
b^5. Fore wing with the reniform round, white. *nephrolenca.*
b^3. Fore wing green to the postmedial line and on costal area to apex ..... *nigroviridis.*
f^1. Fore wing with the postmedial line evenly curved throughout.
a^2. Hind wing orange.
a^3. Fore wing with the postmedial line dentate ... *cinerea.*
b^3. Fore wing with the postmedial line not dentate. *exophthalmica.*
b^2. Hind wing brown ..... *leucotis.*
g^1. Fore wing with the postmedial line slightly angled inwards at discal fold and incurved below vein 4.
a^2. Hind wing with more or less orange.
a^3. Fore wing with the basal area darker than the postmedial area..... *pyraspis.*
b^3. Fore wing with the basal area not darker than the postmedial area.
a^4. Fore wing with the orbicular absent.
a^5. Fore wing with the postmedial area paler than the medial area..... *fulvescens.*
b^5. Fore wing with the postmedial area not paler than the medial area ..... *flavipennis.*
b^4. Fore wing with the orbicular represented by two minute obliquely placed spots.
a^5. Fore wing with the antemedial line slightly angled outwards below costa, then straight and oblique ..... *heliastis.*
b^5. Fore wing with the antemedial line minutely waved.
a^6. Hind wing with broad black subterminal band interrupted in submedian interspace. *densa.*

b^6. Hind wing with the subterminal band narrow and irregular or obsolescent.
a^7. Fore wing with silvery blue marks on inner area beyond the medial line.
a^8. Fore wing with pale patches beyond the postmedial and subterminal lines in submedian interspace..... *acclivis.*
b^8. Fore wing without pale patches beyond the postmedial and subterminal lines in submedian interspace..... [illegible].
b^7. Fore wing without silvery blue marks on inner area beyond the medial line.
a^8. Fore wing whitish suffused with pale ruf[illegible] ..... *saneta.*
b^8. Fore wing suffused with dark brown.
a^9. Hind wing without postmedial band.
a^{10}. Fore wing without black irroration.
a^{11}. Fore wing with black marks beyond postmedial line above and below discal fold..... *varia.*
b^{11}. Fore wing without black marks beyond postmedial line above and below discal fold..... *subterminalis.*
b^{10}. Fore wing with black irroration ... *apicalis.*
b^9. Hind wing with more or less developed postmedial band.
a^{10}. Fore wing red-brown slightly suffused with leaden fuscous ..... *binorbis.*
b^{10}. Fore wing dark brown strongly suffused with leaden fuscous.
a^{11}. Hind wing of male with the subterminal band absent, of female with prominent yellow band before termen ..... *bisexualis.*
b^{11}. Hind wing of male with the subterminal band more or less developed, of female with yellow spots before termen..... *hypoxantha.*
b^2. Hind wing without orange.
a^3. Hind wing with more or less developed pale postmedial line.
a^4. Fore wing without whitish patch beyond postmedial line on inner area.
a^5. Hind wing with the whitish postmedial line obsolescent ..... *moldavicola.*
b^5. Hind wing with the whitish postmedial line distinct ..... *lascivalis.*
b^4. Fore wing with whitish patch beyond postmedial line on inner area..... *albimarginata.*
b^3. Hind wing without pale postmedial line.
a^4. Fore wing with pale streaks on the veins of terminal half.
a^5. Fore wing with the postmedial line not excurved above inner margin.
a^6. Fore wing with the streaks on the veins whitish ..... *venata.*
b^6. Fore wing with the streaks on the veins pale red..... *rubrivena.*
b^5. Fore wing with the postmedial line excurved above inner margin ..... [illegible].

b^4. Fore wing without pale streaks on the veins of terminal half.
a^5. Fore wing with the lines defined by silvery grey ..... *metallica.*
b^5. Fore wing with the lines not defined by silvery grey.
a^6. Fore wing without dark patch on postmedial costal area.
a^7. Fore wing with the basal half paler than the terminal half.
a^8. Fore wing with the terminal half purplish fuscous ..... *molybdota.*
b^8. Fore wing with the terminal half red-brown.
a^9. Fore wing with the subterminal line minutely dentate.
a^{10}. Fore wing with the basal half pale rufous ..... *vicina.*
b^{10}. Fore wing with the basal half grey.
a^{11}. Fore wing without blackish mark on medial area in submedian fold *hemipolia.*
b^{11}. Fore wing with blackish mark on medial area in submedian fold ... *subdentula.*
b^9. Fore wing with the subterminal line not dentate.
a^{10}. Fore wing with black spot on termen at discal fold ... . *terminipuncta.*
b^{10}. Fore wing without black spot on termen at discal fold.
a^{11}. Fore wing with the postmedial line not excurved above inner margin.
a^{12}. Fore wing with oblique black discoidal bar ..... *badia.*
b^{12}. Fore wing without oblique black discoidal bar.
a^{13}. Fore wing with the terminal area suffused with rufous ..... *rufula.*
b^{13}. Fore wing with the terminal area suffused with fuscous..... *umbrifera.*
b^{11}. Fore wing with the postmedial line excurved above inner margin.
a^{12}. Fore wing with the postmedial line dark defined on each side by grey..... *hemiphæa.*
b^{12}. Fore wing with the postmedial line double filled in with whitish.
a^{13}. Fore wing with the medial line incurved ..... *itvarra.*
b^{13}. Fore wing with the medial line oblique and slightly waved..... *pallida.*
b^7. Fore wing with the basal half not paler than the terminal half.
a^8. Fore wing with black patch in discal fold beyond postmedial line.
a^9. Fore wing pale pinkish rufous ..... *brunnea.*
b^9. Fore wing greyish brown.
a^{10}. Fore wing with the postmedial line not waved below vein 4 ..... *incondita.*
b^{10}. Fore wing with the postmedial line minutely waved below vein 4 ..... *lamia.*

b^8. Fore wing without black patch in discal fold beyond postmedial line.
a^9. Fore wing without yellowish patch beyond the cell.
a^{10}. Fore wing with the postmedial line excurved below costa ..... *inobtrusa.*
b^{10}. Fore wing with the postmedial line oblique from costa to vein 6 ..... *phœa.*
b^9. Fore wing with yellowish patch beyond the cell ..... *phyllidia.*
b^6. Fore wing with dark patch on postmedial costal area.
a^7. Fore wing with the reniform whitish.
a^8. Hind wing white ..... *[illegible].*
b^8. Hind wing suffused with brown.
a^9. Fore wing with white point at lower extremity of reniform ..... *fannia.*
b^9. Fore wing without white point at lower extremity of reniform ..... *aeria.*
b^7. Fore wing with the reniform pale pinkish.
a^8. Fore wing with the antemedial line inwardly oblique and slightly excurved below the cell ..... *[illegible].*
b^8. Fore wing with the antemedial line erect and strongly excurved below the cell . *bicornis.*
c^7. Fore wing with the centre of reniform concolorous with the ground-colour.
a^8. Fore wing without dark medial shade.
a^9. Fore wing with the postmedial line oblique below vein 4 ..... *melanodonta.*
b^9. Fore wing with the postmedial line incurved below vein 4.
a^{10}. Fore wing with the subterminal line distinct, whitish ..... *[illegible].*
b^{10}. Fore wing with the subterminal line indistinct, brown.
a^{11}. Fore wing not irrorated with black *bettina.*
b^{11}. Fore wing irrorated with black ... *holophœa.*
b^8. Fore wing with dark medial shade.
a^9. Fore wing pale grey-brown with dark irroration ..... *[illegible].*
b^9. Fore wing purplish brown without dark irroration.
a^{10}. Fore wing with small dentate black mark beyond postmedial line at discal fold ..... *perpleza.*
b^{10}. Fore wing with bicuspid black mark beyond postmedial line at discal fold *illosis.*
c^{10}. Fore wing with large tricuspid black mark beyond postmedial line at discal fold ..... *tricuspis.*
b^1. Fore wing with the postmedial line oblique from costa to vein 4, then inwardly oblique and waved.
a^2. Fore wing with black patch at base of costa ..... *amazonia.*
b^2. Fore wing without black patch at base of costa ... *melagona.*

5600. Ozarba orthozona. (Plate CLX. fig. 15.)

Metachrostis orthozona, Hmpsn. Ann. S. Afr. Mus. ii. p. 409 (1902).

♂. Head and thorax grey-brown; pectus, legs, and abdomen

yellow irrorated with brown, the fore tibiæ and tarsi fuscous ringed with white. Fore wing red-brown suffused with grey; antemedial line very indistinct, double, angled outwards below costa, then sinuous; a slightly curved dark medial line defined on outer side by white and followed by a pale rufous band with traces of a dark line on it before the slightly curved dark postmedial line: the postmedial area with some pale points on costa and a brown shade angled inwards at discal fold to the postmedial line; subterminal line very indistinct, greyish slightly defined on inner side by brown, very minutely dentate, incurved at submedian fold; a terminal series of dark points. Hind wing orange with a brown terminal band expanding into a patch at apex and not reaching tornus; cilia whitish mixed with brown; the underside with the costal area and termen slightly irrorated with brown, a dark discoidal point.

Hab. Cape Colony, Annshaw (*Miss F. Barrett*), 1 ♂ type. *Exp.* 26 millim.

5601. **Ozarba abscissa.** (Plate CLX. fig. 16.)

Microphysa abscissa, Wlk. xv. 1764 (1858).
Erastria fasciata, Wllgrn. Wien. Ent. Mon. iv. p. 173 (1860).
Thalpochares partita, Mab. C.R. Ent. Soc. Belg. xxiii. p. xviii (1880).

Head, thorax, and abdomen dark brown mixed with grey; lower part of frons white; pectus, legs, and ventral surface of abdomen whitish irrorated with brown, the fore tibiæ and the tarsi brown ringed with white. Fore wing greyish suffused and irrorated with dark reddish brown: subbasal line represented by a dark point on costa; antemedial line dark, angled outwards below costa and excurved below the cell: a straight postmedial band, its inner part white, its outer rufous, defined at sides by black lines, a dark shade before it except towards costa and a dark patch beyond it at discal fold; some pale points on postmedial part of costa; subterminal line slight, whitish, with an oblique dark shade before it from costa and some dark suffusion beyond it, excurved below vein 7 and at middle, then incurved: a terminal series of blackish points. Hind wing reddish brown, the cilia with fine whitish line at base and whitish tips; the underside ochreous white irrorated with brown except on inner area, a dark discoidal spot, curved postmedial line, and diffused subterminal line.

Ab. 1. *partita.* Fore wing with the postmedial band narrower.

Hab. Zululand (*Angas*), 1 ♂ type; Natal, Tugela R. (*Reynolds*), 1 ♀, Durban (*Gueinzius*, *Gooch*, *Innes*, *Leigh*), 6 ♂, 2 ♀; Cape Colony, 2 ♂; Madagascar. *Exp.* 22–26 millim.

*5602. **Ozarba domina.** (Plate CLX. fig. 17.)

Tarache domina, Holl. Psyche, vii. p. 128, pl. v. f. 24 (1894).

♂. Head, thorax, and abdomen dark brown slightly mixed with grey; palpi with whitish ring at extremity of 2nd joint; tibiæ

and tarsi dark brown ringed with white. Fore wing dark brown suffused with greyish; antemedial line represented by a slight whitish striga from costa; a broad white postmedial band narrowing somewhat to costa and with traces of the nearly straight double dark postmedial line on it; some whitish points on postmedial part of costa and a dark patch on costa before the slight white subterminal line which is angled outwards to termen at middle, then incurved; a terminal series of black points defined on inner side by a fine waved white line. Hind wing dark cupreous brown, the cilia whitish tinged with brown; the underside brown irrorated with white, a dark discoidal point and curved postmedial line.

Hab. Gaboon, Ogové R., type † ♂ in Coll. Holland. *Exp.* 20 millim.

5603. Ozarba transversa.

Odice transversa, Moore, Lep. Ceyl. iii. p. 57, pl. 150. f. 15 (1884); Hmpsn. Moths Ind. ii. p. 329.

Head and thorax fuscous brown mixed with some grey; lower part of frons white; abdomen brown with whitish segmental lines; pectus, legs, and ventral surface of abdomen whitish irrorated with brown, the fore tibiæ and the tarsi blackish ringed with white. Fore wing greyish suffused with fuscous brown; subbasal line represented by a dark point below costa; antemedial line indistinct, dark, slightly angled outwards below costa; a somewhat oblique ochreous white medial band with fuscous line near its outer edge, some pale points beyond it on costa; subterminal line slight, whitish, nearly straight to discal fold and excurved at middle; a punctiform blackish terminal line defined on inner side by grey; cilia with a whitish line at base. Hind wing greyish suffused with fuscous brown, the cilia with a fine whitish line at base; the underside ochreous white irrorated with brown, a dark discoidal point and indistinct diffused subterminal line.

Hab. Ceylon, Haputale (*Mackwood*), 2 ♂, 2 ♀ type. *Exp.* 24–28 millim.

5604. Ozarba rectifascia. (Plate CLX. fig. 18.)

Metachrostis rectifascia, Hmpsn. Moths Ind. ii. p. 328 (1904).

♀. Head, thorax, and abdomen grey-brown, the last with whitish segmental lines; pectus, legs, and ventral surface of abdomen white slightly irrorated with brown, the fore tibiæ and the tarsi brown ringed with white. Fore wing grey-brown suffused with red-brown and with slight dark irroration; a subbasal blackish striga from costa and streak above vein 1; antemedial line indistinct, blackish, angled outwards below costa and excurved in submedian interspace; a nearly straight oblique black medial line followed by a whitish band, then a red-brown shade before the nearly straight oblique

black postmedial line with some white points beyond it on costa; subterminal line indistinct, whitish defined on inner side by a blackish shade at costa with a short black streak below it, angled inwards at discal and submedian folds, the area beyond it darker brown with short black streaks above and below vein 5; a black terminal line slightly defined by whitish on inner side; cilia rufous. Hind wing dark red-brown, the cilia whitish tinged with rufous; the underside whitish irrorated with brown, the terminal area suffused with brown, a dark discoidal point and curved postmedial line.

Hab. Bombay, 1 ♀ type. *Exp.* 30 millim.

*5605. Ozarba camptozona. (Plate CLX. fig. 19.)

Metachrostis camptozona, Turner, Pr. Linn. Soc. N. S. W. xxvii. p. 114 (1902).

♀. Head and thorax red-brown slightly mixed with black; palpi blackish at sides; tibiæ and tarsi with pale rings; abdomen fuscous. Fore wing red-brown irrorated with fuscous; an indistinct double waved subbasal line from costa to vein 1 with a black point beyond it on costa: an indistinct double waved antemedial line with black point at costa; a medial black band oblique from costa to median nervure where it is angled, then less prominent, with a black point before it below costa and the deep black discoidal lunule on its outer edge outwardly defined by a slender white line; a small black spot beyond the cell and a spot above it on costa; the postmedial line double, oblique, minutely waved and slightly bent outwards above inner margin, and with some diffused brown beyond it; an indistinct sinuous waved subterminal line with some greyish on its inner edge and diffused black beyond it; a terminal series of black points. Hind wing fuscous brown; cilia whitish intersected with fuscous; the underside greyer with grey-edged black discoidal spot, curved postmedial line, and traces of postmedial line.

Hab. Queensland, Brisbane, type † ♀ in Coll. Illidge. *Exp.* 24 millim.

5606. Ozarba madanda.

Acontia madanda, Feld. Reis. Nov. pl. 108. f. 28 (1874).
Acontia dignata, Möschl. Verh. zool.-bot. Ges. Wien, xxxiii. p. 297, pl. xvi. f. 12 (1883).

Head and thorax red-brown; abdomen yellowish suffused with rufous leaving slight whitish segmental lines; pectus, legs, and ventral surface of abdomen white, the fore tibiæ and the tarsi black ringed with white. Fore wing with the basal half chocolate red-brown; subbasal line represented by two slight dark striæ from costa; antemedial line double at costa, then indistinct, waved; the dark area bounded by a black line angled outwards at lower angle of cell; the terminal half grey to beyond postmedial line then

rufous; reniform small, elliptical, defined by red-brown on inner side and by black points on outer; postmedial line red-brown with blackish point at costa, slightly excurved below costa, then oblique; subterminal line grey slightly defind on inner side by red-brown, evenly curved; a black terminal line; cilia dark brown. Hind wing orange-yellow, the inner margin tinged with fuscous; a blackish subterminal line expanding at costa and almost obsolete on inner area; veins 7, 6 streaked with black on terminal area; a black terminal line except at tornus; cilia blackish, white at tips towards apex. Underside of fore wing yellow with diffused blackish fascia in and below cell, small postmedial spot on costa, quadrate patch before apex and apical patch; hind wing with black discoidal spot and subterminal band from costa to discal fold.

Hab. Transvaal, Piet Retief (*Crawshay*), 2 ♂; Natal, Howick (*Cregoe*), 1 ♀, Durban (*Trimen*), 1 ♂; Orange R. Colony, Bloemfontein (*Eckersley*), 1 ♂; Cape Colony (*Dreyer, Sir A. Smith*), 2 ♂, Transkei (*Miss F. Barrett*), 7 ♂, 5 ♀, Uitenhage (*Bairstow*), 1 ♀. *Exp.* 20–26 millim.

5607. Ozarba chrysaspis. (Plate CLX. fig. 20.)

Thalpochares chrysaspis, Meyr. Tr. R. Soc. S. Aust. xiv. p. 197 (1891).
Metaclirostis epichroma, Turner, Pr. Linn. Soc. N. S. W. xxvii. p. 114 (1902).

♂. Head and thorax dark brown; pectus and legs brownish and grey; abdomen grey-brown with dark dorsal crest at base. Fore wing with the basal half grey irrorated with brown and black and with four waved lines; a medial blackish band diffused on outer side; a black point in middle of cell; a deep black somewhat quadrate spot in end of cell before the indistinct pale reniform which has two black points on its outer edge; the postmedial line double, black, slightly sinuous, excurved below costa, then oblique and with a diffused dentate line beyond it from vein 5 to inner margin; a diffused dentate subterminal line with grey points at the veins; a series of black points on termen. Hind wing orange, slightly irrorated with fuscous; the inner area suffused with fuscous; a broad terminal black band; the underside more strongly irrorated with brown, with dark discoidal spot and curved postmedial line.

Hab. Queensland, Duaringa, type † ♂ in Coll. Meyrick, Toowoomba (*Turner*), 2 ♂, Brisbane type † ♂ *epichroma* in Coll. Turner. *Exp.* 22 millim.

*5608. Ozarba microcycla. (Plate CLX. fig. 21.)

Acontia microcycla, Mab. Bull. Soc. Zool. Fr. iii. p. 94 (1878); Saalm. Lep. Madag. p. 311.

♂. (Head wanting); thorax red-brown mixed with some greyish; pectus and legs whitish; abdomen orange irrorated with

brown, the ventral surface whitish. Fore wing with the basal area and costal area to postmedial line whitish tinged with rufous and irrorated with brown, the medial area dark brown except towards costa, the terminal area rufous; an indistinct waved brown antemedial line with some brown before it on costa and brown striga beyond it from costa; reniform represented by a white patch, rounded below; postmedial line fine, brown, defined on each side by whitish, excurved from costa to vein 6, then oblique; subterminal line whitish, slightly curved, bent outwards to costa, a slight whitish mark beyond it in submedian fold; the terminal area with dark patch at discal fold with slight pale marks above and below it; a terminal series of slight blackish striæ; cilia dark brown with whitish marks below apex and at middle. Hind wing bright orange with some red-brown irroration on basal and costal area, and terminal red-brown band expanding somewhat to costa. Underside of fore wing orange, the inner area whitish, an elliptical brown discoidal spot, the terminal area broadly brown from costa to vein 3 with slight wedge-shaped white marks on termen; hind wing orange with apical red-brown patch.

Hab. Madagascar, type † ♂ in Coll. Mabille. *Exp.* 24 millim.

5609. Ozarba accincta. (Plate CLX. fig. 22.)

Metaclrostis accincta, Dist. A. M. N. H. (7) i. p. 224 (1898).

Head and thorax red-brown mixed with grey; abdomen yellowish irrorated with brown, the basal crest blackish at tip; pectus and legs whitish irrorated with brown, the fore tibiæ and the tarsi black ringed with white. Fore wing with the basal half grey-brown, the terminal half deep rufous; subbasal line indistinct, double, waved, from costa to submedian fold; antemedial line indistinct, double, waved, with two black points at costa; medial line dark, straight, a black patch beyond it in submedian interspace extending to postmedial line; reniform with slight white annulus defined on inner side by a black patch and on outer by black points; postmedial line double filled in with whitish, oblique from costa to vein 6, then obliquely incurved and defined by yellowish on outer side, some pale points beyond it on costa; subterminal line grey, excurved at middle, incurved at discal and submedian folds and bent outwards to tornus; a terminal series of black points; cilia grey mixed with fuscous. Hind wing orange-yellow, the basal area suffused with red-brown, the terminal area with fuscous except at tornus; cilia brown with whitish line at base and whitish tips; the underside yellow, the costal area irrorated with fuscous, a dark discoidal point and curved postmedial line, the apical area suffused with fuscous with some white subterminal points, then a slight subterminal line.

Hab. Transvaal, Bultfontein (*Janse*), 1 ♂. 1 ♀, Rietfontein (*Janse*), 3 ♀. *Exp.* 22–24 millim. Type † in Coll. Distant.

5610. Ozarba punctigera.

Ozarba punctigera, Wlk. xxxii. 685 (1865); Hmpsn. Moths Ind. ii. p. 329.

Head and thorax reddish brown tinged with grey; pectus, legs, and abdomen grey irrorated with fuscous brown, the tarsi black ringed with white. Fore wing with the basal half grey tinged with rufous and irrorated with brown, the terminal half dark red-brown tinged with grey especially before postmedial line and on terminal area; subbasal line faint, double, slightly excurved below costa and ending at vein 1; antemedial line indistinct, double, somewhat inwardly oblique and slightly excurved above inner margin; reniform with faint whitish annulus defined on inner side by an oblique black

Fig. 128.—*Ozarba punctigera*, ♂. ⅔.

lunule and on outer by two to four black points; postmedial line dark brown defined on inner side by whitish, angled outwards below costa, then oblique and defined on outer side by whitish, some pale rufous points beyond it on costa; subterminal line whitish, excurved at middle, then incurved and ending at tornus; a fine dark terminal line; cilia with fine whitish line at base and pale line near tips. Hind wing pale cupreous brown; the cilia whitish with a brown line near base; the underside whitish thickly irrorated with dark brown, a slight discoidal point and indistinct diffused postmedial and subterminal lines.

Hab. Mashonaland, Salisbury (*Marshall*), 1 ♂, 2 ♀; Japan, Kiushiu, 1 ♀, Hakone (*Leech*), 1 ♀, Satsuma (*Leech*), 1 ♂, Yokohama (*Pryer*), 1 ♂, 2 ♀; Corea, Gensan (*Ito*), 2 ♂; C. China, (*Laye*), 2 ♂, 1 ♀ type, Chusan Is. (*J. J. Walker*), 1 ♂, Kiukiang (*Pryer*), 1 ♂, Ichang (*Mrs. Pratt*), 1 ♀; Kashmir, Rajauri (*Leech*), 1 ♂; Punjab, Kulu, Sultanpur (*G. Young*), 1 ♂, Simla (*Harford*), 3 ♀, Dharmsála (*Hocking*), 1 ♂, 2 ♀, Kangra Valley (*Dudgeon*), 1 ♀, Jubbulpur, 1 ♀; Bengal, Calcutta, 1 ♂; Travancore, Pirmád (*Mrs. Imray*), 1 ♂; Queensland, Moreton Bay (*Diggle*), 1 ♀, Brisbane (*Turner*), 1 ♂; N. S. Wales, (*Raynor*), 2 ♂. *Exp.* 22–24 millim.

5611. Ozarba lepida.

Ozarba lepida, Saalm. Lep. Madag. p. 280, f. 247 (1891).

Head, thorax, and abdomen grey thickly irrorated with fuscous

brown; pectus, legs, and ventral surface of abdomen white irrorated with brown, the tarsi black ringed with white. Fore wing grey irrorated with blackish, the postmedial area tinged with red-brown and the terminal area with fuscous; subbasal line slight, double, sinuous, from costa to submedian fold; antemedial line double, angled inwards in cell and excurved below it; a slight black point in middle of cell; reniform with slight white annulus except above, defined on inner side by an oblique black bar and on outer by small black spots and minute streaks; an oblique black medial line, somewhat diffused on outer side and with black fascia from it to postmedial line above vein 1; postmedial line double filled in with whitish, expanding and filled in with yellowish at costa, angled outwards below costa, then oblique, defined on outer side by yellowish at costa, then by rufous with an oblique dark shade beyond it, some white and black points on postmedial part of costa; subterminal line whitish, excurved at middle and angled inwards at vein 2; a terminal series of small black lunules; cilia with white lines at base and near tips. Hind wing whitish suffused and irrorated with brown; cilia white mixed with brown and with white line at base; the underside yellowish white irrorated with brown, a dark discoidal spot and curved postmedial line.

Hab. Br. E. Africa, Eb Urru (*Betton*), 1 ♂, 1 ♀, Machakos (*Crawshay*), 1 ♂, 1 ♀, Kikuyu (*Crawshay*), 1 ♀; Madagascar. *Exp.* 22 millim.

5612. Ozarba corniculans.

Erastria corniculans, Wllgrn. Wien. Ent. Mon. iv. p. 173 (1860).
Erastria figurata, Wlk. xxxiii. 793 (1865).
Erastria nyanza, Feld. Reis. Nov. pl. 120. f. 6 (1874).

Head and tegulæ reddish brown; thorax and abdomen fuscous brown with a greyish tinge, the basal crest tipped with black; pectus, legs, and ventral surface of abdomen whitish irrorated with fuscous, the fore tibiæ and the tarsi black ringed with white. Fore wing with the basal half grey-brown with slight dark irroration, the terminal half purplish brown with some grey before postmedial line and a pale patch on inner half before subterminal line; subbasal pale rufous and black points on costa; antemedial line indistinct, double, excurved below the cell and above inner margin, a black point in middle of cell; reniform grey with slight whitish annulus, defined on inner side by black and on outer and below by small black spots and points; postmedial line double, black filled in with whitish, oblique from costa to vein 6 where it is angled outwards, incurved and defined by whitish on outer side below vein 4, a black patch before it above vein 1 and some pale rufous points beyond it on costa; subterminal line whitish, nearly straight from costa to vein 4 where it is angled outwards, then incurved and ending at tornus; a terminal series of minute black lunules; cilia pale rufous with dark lines near base and tips. Hind wing dark

cupreous brown with a fine white line at base of cilia; the underside whitish thickly irrorated with fuscous, traces of diffused postmedial and subterminal lines.

Ab. 1. Fore wing without the black patch on medial area above vein 1 and with a fine whitish streak on postmedial area below vein 5.

Hab. Mashonaland, Salisbury (*Marshall*), 1 ♂; Natal, Malvern (*Marshall*), 1 ♂, Estcourt (*Hutchinson*), 1 ♀, Durban (*Gooch*), 1 ♂, 2 ♀; Cape Colony, Knysna. *Exp.* 22–30 millim.

5613. Ozarba megaplaga, n. sp. (Plate CLX. fig. 23.)

Head, thorax, and abdomen grey-brown; pectus, legs, and ventral surface of abdomen whitish irrorated with brown, the tarsi black ringed with white. Fore wing grey, a black-brown patch on outer part of medial area from subcostal nervure to inner margin, its upper edge excised, some brown suffusion on postmedial and terminal areas; two slight brownish subbasal spots on costa; antemedial line indistinct, double, incurved in cell, then slightly sinuous; reniform grey, oblique elliptical, with slight whitish striga on its inner edge, defined by the dark patch and on outer side by an oblique black striga and small spot from it to postmedial line, a small brown spot above it on costa; postmedial line double, excurved below costa, then oblique, some whitish points beyond it on costa; subterminal line grey, nearly straight to vein 5, then faint and minutely waved; the terminal area with slight dark streaks in the interspaces ending in black points. Hind wing cupreous brown with a fine pale line at base of cilia; the underside ochreous white irrorated with brown, a slight discoidal lunule and minutely waved postmedial and terminal lines.

Hab. Br. E. Africa, Eb Urru (*Betton*), 4 ♀, 1 ♂ type. *Exp.* 28–30 millim.

5614. Ozarba sciaptera. (Plate CLX. fig. 24.)

Metachrostis sciaptera, Lower, Tr. R. Soc. S. Austr. xxvii. p. 44 (1903).

♂. Head, thorax, and abdomen reddish brown mixed with fuscous; anal tuft ochreous. Fore wing reddish brown suffused with fuscous, the terminal area whitish; the subbasal line represented by double black striæ from costa and cell; an ill-defined double black antemedial line angled outwards below costa in submedian fold and above inner margin; a curved minutely waved medial line; an oblique rather Y-shaped whitish discoidal spot; a double black postmedial line filled in with ochreous, strongly bent outwards and oblique from costa to vein 7, then inwardly oblique and angled outwards at vein 1, the costa beyond it black with whitish points; an indistinct whitish minutely dentate subterminal line angled inwards in discal and submedian folds,

defined on inner side by a black patch at costa and on outer by a patch above middle; a terminal series of small black lunules. Hind wing fuscous grey; the underside brownish white irrorated with brown, a discoidal point, an indistinct sinuous postmedial line, and traces of a subterminal line.

Hab. Queensland, Mackay, type † ♂ in Coll. Lower. *Exp.* 25 millim.

5615. Ozarba mallarba.

Ozarba mallarba, Swinh. P. Z. S. 1885, p. 452, pl. 27. f. 3; Hmpsn. Moths Ind. ii. p. 330.

Head, thorax, and abdomen red-brown mixed with some grey; pectus, legs, and ventral surface of abdomen whitish; fore tibiæ and tarsi blackish ringed with whitish. Fore wing brown; subbasal line double, black filled in with white, slightly angled outwards below costa and ending at submedian fold; antemedial line double, black filled in with white and defined on each side by whitish, slightly sinuous; orbicular white with black point in centre and defined by black, minute, conjoined to antemedial line; reniform brown with white bars at sides and some blackish before and beyond it, oblique; a diffused medial blackish shade; postmedial line double, black filled in with whitish, bent outwards below costa, then oblique and slightly excurved at submedian fold, defined on outer side by whitish running obliquely from costa; some postmedial white points on costa; the veins before and beyond postmedial line slightly streaked with white; subterminal line fine, white, nearly straight from costa to vein 4 where it is angled outwards, then incurved and ending at tornus; a punctiform black terminal line defined on inner side by white except at apex and tornus. Hind wing bronze-brown; the underside whitish suffused with brown, an indistinct curved postmedial line and minute whitish streaks on the veins before termen on apical half.

Hab. Punjab, Allahabad, 2 ♂; Bombay, Poona (*Swinhoe*), 1 ♀ type; Madras, Belgaum (*Watson*), 1 ♂, 1 ♀. *Exp.* 20–22 millim.

5616. Ozarba hypenoides.

Thalpochares hypenoides, Butl. Ill. Het. B.M. vii. p. 65, pl. 130. f. 2 (1889); Hmpsn. Moths Ind. ii. p. 328.

Falcimala sagittifera, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 700, pl. A. f. 5 (1898).

Head, thorax, and abdomen grey mixed with fuscous brown, the last with slight pale segmental lines; palpi fuscous at sides; pectus, legs, and ventral surface of abdomen whitish tinged with brown, the tarsi fuscous ringed with white. Fore wing pale rufous with slight dark irroration, some purple-brown suffusion before medial line or the whole basal half suffused with purple-brown; subbasal line represented by an obliquely curved black striga from costa; antemedial line black slightly defined on inner side by whitish, angled outwards below costa and minutely waved on inner

area; medial line double, the inner line indistinct, the outer black, slightly angled outwards at subcostal and median nervures; reniform with whitish annulus, its lower extremity produced to a point, a triangular black spot beyond it; postmedial line indistinct, double, oblique from costa to vein 6 where it is acutely angled outwards, then incurved to lower extremity of reniform, some white points with blackish streaks between them beyond it on costa; subterminal line indistinct, whitish, a rather wedge-shaped blackish patch before it below costa, excurved and minutely waved at middle, then incurved; a terminal series of black points. Hind wing whitish suffused with brown, the cilia with a fine white line at base; the underside white irrorated with fuscous brown, a slight discoidal lunule, indistinct curved postmedial and subterminal lines, and fine terminal line.

Hab. Punjab, Simla (*Harford, Nurse*), 2 ♂, 1 ♀, Dharmsála (*Hocking*), 2 ♂ type, Deyra Dhun, 1 ♀; Sikhim (*Dudgeon*), 1 ♂ type *sagittifera*; Bhután (*Dudgeon*), 1 ♀; Ceylon, N. Centr. Province (*Alston*), 1 ♂. *Exp.* 14-24 millim.

5617. Ozarba uberosa. (Plate CLX. fig. 25.)

Thalpochares uberosa, Swinh. P. Z. S. 1885, p. 457; Hmpsn. Moths Ind. ii. p. 330.

Head and thorax whitish mixed with bronze-brown, the abdomen more ochreous; pectus, legs, and ventral surface of abdomen ochreous white, the fore tibiæ and tarsi blackish ringed with white. Fore wing greenish white tinged in parts with brown, the medial area suffused with fuscous brown, the base tinged with brown; antemedial line double filled in with whitish and defined by whitish on inner side, angled outwards below costa and on median nervure, then oblique; reniform whitish with dark centre, rather bar-shaped; postmedial line double filled in with whitish and defined by whitish on outer side, oblique from costa to vein 6 and incurved below vein 5; subterminal line indistinct, whitish defined on inner side by a dark shade on costal area, excurved at middle; a punctiform black terminal line; cilia strongly tinged with brown. Hind wing bronze-brown; the underside whitish thickly irrorated with fuscous, a black discoidal striga, diffused postmedial and subterminal lines, and terminal series of black points.

Hab. Punjab, Jubbulpore, 1 ♂; Bombay, Poona (*Swinhoe*), 2 ♂, 3 ♀ type. *Exp.* 16 millim.

5618. Ozarba glaucescens, n. sp. (Plate CLX. fig. 26.)

Head and thorax greenish white tinged with brown; palpi with some black at sides; frons with lateral black bars; antennæ brown; fore tibiæ and the tarsi black ringed with whitish; abdomen ochreous with fuscous dorsal bands and the dorsal crest tipped with black. Fore wing greenish white sometimes tinged in parts with rufous and irrorated with black; subbasal line represented by two

slight dark striæ from costa: antemedial line double, the inner line indistinct, the outer black, excurved below costa and in submedian interspace; an ill-defined waved medial line with a dark shade beyond it; reniform with brownish centre and whitish annulus defined by black, a slight triangular dark mark beyond it; postmedial line double, black, oblique from costa to vein 6 and incurved below vein 5; subterminal line whitish defined on inner side by dark shades on costal area and at middle and slightly by fuscous on outer side, slightly excurved below vein 7 and strongly at middle, a blackish patch beyond it at discal fold; a fine black terminal line; cilia brownish and fuscous. Hind wing fuscous brown, the cilia paler; the underside brownish white thickly irrorated with fuscous, an indistinct discoidal spot and diffused curved postmedial line.

Hab. Bombay, Poona (*Swinhoe*), 1 ♂; Madras, Cuddapah (*Campbell*), 2 ♂ type. *Exp.* 16 millim.

5619. **Ozarba sciaphora**, n. sp. (Plate CLX. fig. 27.)

Thalpochares laurea, Druce, Biol. Centr.-Am., Het. ii. p. 497 (part.).

♀. Head, thorax, and abdomen brown mixed with grey; fore tibiæ and the tarsi black ringed with white. Fore wing grey thickly irrorated with brown: two slight subbasal black striæ from costa and a curved striga from cell with a short black streak beyond it; traces of a sinuous antemedial line; a slight waved black medial line with a brown band beyond it from costa to just below cell; postmedial line double, the outer line indistinct, strongly bent outwards below costa, excurved to discal fold, then incurved and waved towards inner margin, some white points beyond it on costa; subterminal line represented by a series of white points with black points before and beyond them and a <-shaped white mark in discal fold; a fine black terminal line defined on inner side by white and slightly interrupted at middle; cilia with a slight whitish line near tips. Hind wing grey-brown, the cilia white tinged with brown at base; the underside whitish irrorated with brown especially on costal area, a dark discoidal spot.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 18 millim.

5620. **Ozarba costata**, n. sp. (Plate CLX. fig. 28.)

♀. Head and thorax grey suffused with red-brown, the tegulæ with brown medial line; pectus and legs white irrorated with fuscous, the tarsi black ringed with white: abdomen grey suffused with fuscous leaving slight whitish segmental lines, the ventral surface white irrorated with fuscous and with blackish patch at extremity. Fore wing grey tinged with reddish brown and irrorated with black; subbasal line represented by a black point on costa and oblique striga from cell with brown patch beyond it; antemedial line slight, with black point on costa, excurved below the cell and

angled inwards above inner margin; a sinuous fuscous medial line, angled outwards on medial nervure; reniform whitish faintly defined by blackish except above; postmedial line indistinct, double, excurved from costa to discal fold, then incurved and minutely waved, a blackish patch beyond it on costal area with some white points on costa; a subterminal series of white points with some fuscous suffusion before and beyond them and slight black points on inner side, excurved at middle and incurved at submedian fold; a terminal series of slight black striæ; cilia whitish tinged with rufous with some fuscous at apex and discal fold and at base towards tornus. Hind wing grey tinged with fuscous especially on terminal area; cilia white tinged with rufous at base; the underside white, the costal and terminal areas tinged with purplish and the costal area irrorated with a few black scales, a slight sinuous antemedial line, discal point and postmedial and subterminal rather punctiform lines.

Hab. Mexico, Saltillo in Coll. Joannis; Argentina, Ledesma, 1 ♂ type. *Exp.* 22 millim.

5621. **Ozarba excurvata**, n. sp. (Plate CLX. fig. 29.)

♂. Head and thorax grey tinged with rufous and slightly irrorated with brown; antennæ brown; pectus and legs whitish tinged with brown, the fore tibiæ and the tarsi black ringed with white; abdomen grey suffused with fuscous leaving slight pale segmental lines, the ventral surface whitish at base. Fore wing grey suffused with brown and slightly irrorated with fuscous; antemedial line double filled in with whitish, excurved below costa, then sinuous; orbicular a whitish point slightly defined by black, the reniform a whitish bar defined by black produced to a slight angle at upper extremity and to a slight streak at lower; a rather diffused dark medial line excurved at middle; postmedial line double, black filled in with whitish, bent outwards below costa, excurved to vein 5, then incurved, some pale points beyond it on costa; traces of a subterminal series of black points; terminal area suffused with fuscous; a terminal series of black striæ with slight whitish points on their inner side. Hind wing fuscous brown, the cilia with a fine whitish line at base; the underside greyish suffused and irrorated with red except on inner area, a black discoidal point, traces of a minutely waved postmedial line, a minute subterminal black streak in discal fold, and terminal series of black points from apex to vein 2.

Hab. Argentina, Gran Chaco, Florenzia (*Wagner*), 1 ♂ type. *Exp.* 16 millim.

5622. **Ozarba honesta.** (Plate CLX. fig. 30.)

Miana honesta, Wlk. xxxii. 677 (1865); Hmpsn. Moths Ind. ii. p. 330.

Head, thorax, and abdomen red-brown mixed with grey; pectus, legs, and ventral surface of abdomen paler; fore tibiæ and the tarsi

blackish ringed with white. Fore wing brownish grey irrorated with dark brown, the postmedial area suffused with red-brown; subbasal line represented by two black striæ from costa; antemedial line double with two black striæ from costa, then very indistinct, sinuous; a black point in middle of cell; medial line nearly straight with a red-brown shade beyond it, extending below the cell to the postmedial line; reniform with slight pale annulus defined on inner side by an oblique black bar and on outer side and below by black points; postmedial line double filled in with grey, oblique from costa to vein 6, then slightly defined on outer side by grey, incurved below vein 5, some whitish points with minute black streaks between them beyond it on costa; subterminal line whitish, slightly excurved below vein 7 and at middle and ending at tornus, some fuscous beyond it at apex, discal and submedian folds; a terminal series of minute black lunules. Hind wing greyish suffused with reddish brown, the cilia whitish; the underside whitish thickly irrorated with brown, a slight discoidal spot.

Hab. Madras, Belgaum (*Watson*), 1 ♀, Coimbatore (*Walhouse*), 1 ♂ type; Ceylon, Avishawelca (*Pole*), 1 ♂. *Exp.* ♂ 20, ♀ 24 millim.

5623. **Ozarba sinua**, n. sp. (Plate CLX. fig. 31.)

♂. Head, thorax, and abdomen dark brown mixed with some grey; pectus, legs, and ventral surface of abdomen whitish irrorated with brown, the fore tibiæ and the tarsi black ringed with white. Fore wing whitish suffused with red-brown; subbasal line represented by two slight black striæ from costa; antemedial line double, waved, acutely angled outwards below costa on median nervure; a sinuous black medial line; reniform with whitish annulus, narrow, constricted at middle and extending to below the cell where it interrupts the postmedial line, which is double filled in with whitish, excurved from below costa to vein 5, then bent inwards to before the reniform and sinuous to inner margin; subterminal line whitish, defined on inner side by blackish suffusion, then by a fine dentate black line, excurved below vein 7 and at middle; a fine terminal black line. Hind wing red-brown, the terminal area suffused with fuscous; the underside whitish tinged with rufous and irrorated with brown, the apical area suffused with fuscous, a slight discoidal lunule and minutely waved postmedial line.

♀. Fore wing more uniformly suffused with red-brown.

Hab. Br. E. Africa, Taveta (*Rogers*), 1 ♂, 1 ♀ type. *Exp.* 24 millim.

5624. **Ozarba plumbipicta**, n. sp. (Plate CLX. fig. 32.)

♀. Head and thorax black mixed with some grey and rufous; palpi rufous at base; pectus and legs rufous mixed with black,

the tarsi black ringed with white; abdomen fuscous with rufous segmental lines, the basal crest black. Fore wing black mixed with purplish rufous, the antemedial and medial areas with deep lustrous blue patches except towards costa; subbasal line double, black filled in with rufous, sinuous, from costa to submedian fold; antemedial line black defined on inner side by rufous, rather diffused and minutely waved; a black discoidal striga with small quadrate pinkish white spot beyond it; postmedial line indistinctly double filled in with rufous, bent outwards below costa and incurved below vein 5, some whitish points beyond it on costa; subterminal line slight, whitish, defined on inner side by somewhat dentate black marks, excurved below vein 7 and at middle, then incurved and bent outwards to tornus; a terminal black line defined on inner side slightly by whitish; cilia pinkish white towards apex and tornus, rufous and black at middle. Hind wing deep orange with a broad black terminal band, with rather sinuous inner edge; cilia pale rufous at tips; the underside with the terminal half of costal area and the terminal area irrorated with black, some slight subterminal white streaks from apex to vein 4.

Hab. Queensland, Moreton Bay (*Diggle*), 1 ♀ type. *Exp.* 20 millim.

5625. Ozarba hemichrysea. (Plate CLXI. fig. 1.)

Ozarba hemichrysea, Hmpsn. P. Z. S. 1910, p. 409.

♂. Head and thorax black mixed with some grey; palpi, pectus, and legs whitish irrorated with black, the tarsi banded with black; abdomen orange irrorated with black, ventrally whitish irrorated with black. Fore wing blackish mixed with grey, the area towards tornus more purplish, the apical area chocolate-brown; a subbasal blackish mark on median nervure; antemedial line ill-defined, blackish, curved and slightly waved; orbicular represented by a whitish point above median nervure; reniform with slight incomplete whitish annulus faintly defined by black, constricted at middle; postmedial line double and filled in with ochreous white towards costa, slightly excurved from below costa to vein 4, then incurved and oblique to inner margin near tornus, some whitish points beyond it on costa; subterminal line represented by faint whitish and black marks, slightly excurved below vein 7 and ending on termen at submedian fold; a black terminal line defined on inner side by whitish; cilia with a whitish patch below apex. Hind wing orange, the costal area suffused with black-brown; a diffused black-brown streak in submedian fold not reaching termen and the inner margin suffused with black-brown; a black terminal line; cilia blackish with whitish patches at apex and discal fold. Underside of fore wing orange irrorated with black, a black discoidal spot and streak in submedian fold, a wedge-shaped patch from apical part of costa to submedian fold; hind wing with black discoidal spot, indistinct, waved postmedial line, and rufous

wedge-shaped patch from apex to vein 2 with black point below it on vein 1.

Hab. Congo, Katanga, Kambove (*Neave*), 1 ♂ type. *Exp.* 20 millim.

5626. Ozarba cyanopasta, n. sp. (Plate CLXI. fig. 2.)

♀. Head brown and whitish, the palpi white in front; thorax dark brown with a silvery blue gloss, the tegulæ creamy white in front; pectus and legs creamy white, the latter slightly tinged with brown, the tarsi blackish ringed with white; abdomen ochreous with diffused dorsal fuscous bands, the ventral surface creamy white. Fore wing dark brown with a silvery blue gloss, a pale fulvous patch above tornus; a very indistinct waved black antemedial line; a small whitish spot on median nervure at origin of vein 2; postmedial line with creamy white spot at costa, then indistinct, blackish, slightly bent outwards below costa, excurved to vein 4, then slightly incurved and sinuous; subterminal line with small creamy white spot at costa, then hardly traceable, dark, excurved at middle; a terminal series of black striæ; cilia white at tips at apex. Hind wing orange; some diffused black streaks at base and a black discoidal striga; the termen and cilia black, expanding into a patch at apex and triangular mark at discal fold. Underside of fore wing pale orange with blackish streak in submedian fold extending to well beyond middle, diffused discoidal spot and large apical patch extending to vein 3; hind wing deep orange with black discoidal spot, medial and postmedial striæ from costa, and terminal band from costa to vein 4 diffused outwards to apex.

Hab. Transvaal, White R. (*Cooke*), 1 ♀ type. *Exp.* 20 millim.

5627. Ozarba chryseiplaga. (Plate CLXI. fig. 3.)

Ozarba chryseiplaga, Hmpsn. P. Z. S. 1910, p. 409.

♀. Head yellowish mixed with black; palpi black at tips; thorax purplish fuscous; pectus and legs whitish mixed with brown, the tarsi blackish ringed with yellowish white; abdomen orange, dorsally banded with fuscous, ventrally irrorated with black. Fore wing purplish fuscous, the outer half of medial area and the terminal area suffused with cupreous brown except towards inner margin; indistinct waved black antemedial and medial lines; reniform with faint whitish annulus slightly defined by black, constricted at middle; postmedial line black with a small whitish spot before it at costa, excurved from below costa to vein 4, then incurved, some slight whitish points beyond it on costa; subterminal line with oblique yellowish white mark from costa, then represented by faint dentate blackish and grey marks; a terminal series of black striæ; cilia white at tips towards apex. Hind wing black-brown with large orange patch on inner area from near base to beyond middle, not extending to inner margin and expanding

beyond the cell to vein 6, a dark streak on it on vein 1 and traces of a medial line; cilia whitish at tips at apex. Underside of fore wing with orange fascia on basal half of costa, a small spot beyond it before the oblique narrow orange postmedial band slightly excurved at middle; hind wing orange with black patch on middle of costa and discoidal lunule, the terminal area black, expanding towards costa, its inner edge irregularly sinuous, a series of small yellowish white spots just before termen.

Hab. Congo, Katanga, Kambove (*Neave*), 1 ♀ type. *Exp.* 20 millim.

5628. **Ozarba metachrysea**, n. sp. (Plate CLXI. fig. 4.)

♀. Head and thorax brown mixed with grey; abdomen reddish brown with pale segmental lines; pectus, legs, and ventral surface of abdomen ochreous irrorated with brown, the fore tibiæ and the tarsi blackish ringed with whitish. Fore wing black-brown mixed with some grey; subbasal line represented by slight black striæ from costa and cell; a narrow whitish antemedial band with a dark line on it, constricted below costa then slightly excurved; a white point on median nervure before the reniform which has a brown centre and white annulus defined by black, narrow, oblique, slightly angled inwards on median nervure; medial line indistinct, oblique, sinuous; postmedial line double filled in with white towards costa and inner margin, minutely waved, excurved from below costa to vein 4, then incurved, some white points beyond it on costa; subterminal line white, excurved below vein 7, excurved and obsolescent at middle and ending at tornus; a punctiform black terminal line; cilia with some white at base and tips at apex and discal fold. Hind wing orange with some brown suffusion at base, in submedian fold, and on inner margin; a broad black terminal band with slight orange striga on it at submedian fold. Underside of fore wing orange suffused with fuscous and with the inner area white to postmedial line, the terminal area blacker with slight white subterminal streaks on the veins and spot at submedian fold, a blackish discoidal spot; hind wing with some black irroration on costal area, a black discoidal spot and indistinct waved postmedial line, the terminal area black with subterminal series of yellow spots.

Hab. Mashonaland, Salisbury (*Marshall*), 1 ♀ type. *Exp.* 22 millim.

5629. **Ozarba contempta**. (Plate CLXI. fig. 5.)

Hydrelia contempta, Wlk. xv. 1762 (1858).

♀. Head and thorax grey mixed with brown; fore tibiæ and tarsi blackish ringed with grey; abdomen yellowish suffused with brown. Fore wing brownish grey irrorated with brown, the terminal area suffused with fuscous brown; subbasal line repre-

sented by a slight dark striga from costa with a dark mark beyond it on costa; antemedial line very indistinct, inwardly oblique below the cell; orbicular small, oblique, defined by black except above; the outer half of medial area dark brown except towards costa, strongly angled outwards below the reniform, which is grey defined on inner side by an obliquely curved black line and on outer by black points; postmedial line very indistinctly double, filled in with greyish, excurved from below costa to vein 4, then oblique and slightly sinuous; subterminal line greyish, hardly traceable except towards costa where it is dentate; a terminal series of black points. Hind wing orange yellow, the terminal area suffused with fuscous brown; the underside with the costal area irrorated with brown except towards base, the terminal area thickly irorated from apex to vein 2.

Hab. Cape Colony (*Sir A. Smith*), 1 ♀ type. *Exp.* 26 millim.

5630. **Ozarba flavescens**, n. sp. (Plate CLXI. fig. 6.)

♂. Head and thorax dark brown mixed with grey; abdomen yellow thickly irrorated with brown, the basal crest tipped with blackish; pectus and legs whitish irrorated with brown, the tarsi blackish ringed with white. Fore wing grey thickly irrorated with blackish; subbasal line represented by blackish points below costa and cell; antemedial line indistinct double, waved; a blackish medial shade interrupted at middle; reniform with brownish centre and grey annulus defined by blackish, small, angled inwards on median nervure; postmedial line double filled in with whitish and defined by whitish on outer side, excurved from costa to vein 4, then incurved, some pale points beyond it on costa; subterminal line whitish, defined on inner side by blackish suffusion especially towards costa, angled inwards at discal fold and outwards at middle, then incurved, some blackish suffusion beyond it except towards apex; a terminal series of minute black lunules defined on inner side by grey. Hind wing yellow irrorated with red-brown, the terminal area suffused with brown; a fine waved dark terminal line; cilia whitish; the underside yellow irrorated with fuscous, the terminal area thickly irrorated, a black discoidal point and indistinct curved postmedial line, some whitish spots before termen from apex to vein 4.

Hab. Br. E. Africa, Eb Urru (*Betton*), 4 ♂ type. *Exp.* 24-26 millim.

5631. **Ozarba flavidiscata**, n. sp. (Plate CLXI. fig. 7.)

♂. Head and thorax dark brown mixed with rufous; abdomen fuscous brown mixed with grey; pectus, legs, and ventral surface of abdomen whitish irrorated with brown, the fore tibiæ and the tarsi blackish ringed with white. Fore wing with the basal half black-brown mixed with some rufous, the postmedial area pale yellow

tinged with rufous, the terminal area greyish tinged with fuscous; subbasal line represented by slight double dark striæ from costa; antemedial line double, slightly angled outwards below the costa, then waved; medial line double, the inner line waved, the outer straight; a black discoidal point; postmedial line indistinct, double, excurved from costa to vein 4, then straight; subterminal line whitish defined on inner side by fuscous and by a dark patch on costa, excurved to vein 4, then incurved; a terminal series of black points. Hind wing black-brown with a large pale yellow discal patch; cilia whitish; the underside yellow, the terminal half of costal area irrorated with brown, a dark discoidal point and waved postmedial line with a whitish band on its outer side from costa to discal fold.

Hab. Madagascar, Betsileo (*Cowan*), 1 ♂ type. *Exp.* 22 millim.

5632. **Ozarba ochrozona**, n. sp. (Plate CLXI. fig. 8.)

♂. Head, thorax, and abdomen dark brown mixed with some grey, the last with pale segmental lines; pectus, legs, and ventral surface of abdomen yellowish irrorated with brown, the fore tibiæ and the tarsi blackish ringed with white. Fore wing greyish almost wholly suffused with fuscous brown; antemedial line indistinctly double, excurved below costa and cell; a black discoidal striga; a yellowish postmedial band with the dark postmedial line on it, excurved from below costa to vein 4, then incurved, some pale points beyond it on costa; subterminal line indistinct, pale, excurved at middle. Hind wing fuscous brown with a diffused orange patch on disk; the underside yellow tinged with rufous and irrorated with fuscous, the terminal area suffused with brown, a slight discoidal point and indistinct sinuous postmedial line.

Hab. Gold Coast, Appan, 1 ♂ type. *Exp.* 20 millim.

*5633. **Ozarba hemiplaca.** (Plate CLXI. fig. 9.)

Eublemma hemiplaca, Meyr. Trans. Ent. Soc. 1902, p. 32.

♂. Head and thorax red-brown mixed with some grey; hind legs yellowish white; abdomen yellowish dorsally irrorated with red-brown. Fore wing with the basal half dark brown mixed with some ochreous white and defined by a black line, slightly excurved at subcostal and median nervures; traces of a dark subbasal line, oblique from costa to submedian fold, and of an incurved antemedial line from cell to inner margin; terminal half white with black discoidal point and some brownish points on costa towards apex; the terminal area browner, narrowing to a point at apex, its inner edge excurved at middle; a terminal series of black points. Hind wing yellowish slightly tinged with brown, the terminal area

suffused with brown; cilia yellowish mixed with some brown; the underside yellowish white, the costal half suffused with reddish brown.

Hab. Queensland, Duaringa, type † ♂ in Coll. Meyrick. *Exp.* 14 millim.

5634. **Ozarba semirubra**, n. sp. (Plate CLXI. fig. 10.)

Head and thorax very dark chocolate-brown slightly mixed with grey; abdomen fuscous with pale segmental lines; pectus, legs, and ventral surface of abdomen whitish irrorated with fuscous, the fore tibiæ and the tarsi black ringed with white. Fore wing with the basal half very dark chocolate-red bounded by a black line incurved below median nervure; the subbasal and antemedial lines represented by minute oblique yellow striæ from costa; the terminal half pale olive-grey; a faint pale discoidal bar; the postmedial costal area with a faint fuscous shade and some minute pale points on costa; subterminal line indistinct, pale, excurved; the termen reddish with a series of black points and a lunulate spot at discal fold; cilia fuscous and grey, reddish at base. Hind wing grey suffused with brown, the cilia whitish; the underside whitish irrorated with fuscous, a curved postmedial line and dark apical patch.

Hab. Madras, Gooty (*Campbell*), 1 ♂, Palnis (*Campbell*), 1 ♀ type. *Exp.* ♂ 18, ♀ 20 millim.

5635. **Ozarba hemiochra**, n. sp. (Plate CLXI. fig. 11.)

♂. Head and thorax fuscous black; abdomen pale rufous irrorated with fuscous brown; pectus, legs, and ventral surface of abdomen whitish, the fore tibiæ and the tarsi black ringed with white. Fore wing with the basal half black-brown, its outer edge angled inwards in submedian fold, the subbasal and antemedial lines represented by faint rufous points on costa; terminal half greyish slightly tinged in parts with rufous; a black discoidal point; faint traces of a postmedial line excurved beyond the cell and of a curved dark subterminal line; a terminal series of black points and a semicircular spot at discal fold; cilia black with some ochreous at base below apex and at middle. Hind wing pale rufous tinged with brown, the terminal area suffused with fuscous from apex to vein 4; a fine black terminal line; cilia pale rufous with a fine brownish line near base; the underside yellow, a dark discoidal point and faint traces of postmedial and subterminal lines, a terminal series of minute black lunules.

Hab. Transvaal, Johannesburg (*Cooke*), 1 ♂ type. *Exp.* 24 millim.

5636. Ozarba semipurpurea. (Plate CLXI. fig. 12.)

Metachrostis semipurpurea, Hmpsn. Ann. S. Afr. Mus. ii. p. 412 (1902).

♂. Head and thorax chocolate-red mixed with some grey and fuscous; abdomen grey suffused with fuscous leaving slight grey segmental lines, the anal tuft tinged with rufous; pectus, legs, and ventral surface of abdomen whitish irrorated with fuscous, the fore tibiæ and the tarsi blackish ringed with white. Fore wing with the basal half deep purplish red suffused with some fuscous on inner area; subbasal line represented by two black points on costa; antemedial line indistinct, double, waved; the dark area bounded by a slightly curved black line with an indistinct line before it excurved at middle; the terminal half grey, tinged with brown towards termen; a slight black discoidal lunule; postmedial line double, slightly excurved from costa to vein 5, then almost straight; subterminal line grey defined on inner side by dark brown and with dark patch before it on costal area, almost evenly curved; a terminal series of small black spots and a dark patch at discal fold; cilia fuscous brown. Hind wing whitish wholly suffused with red-brown, the cilia paler; the underside brownish grey thickly irrorated with dark brown, a black discoidal point, curved postmedial line, and traces of a diffused subterminal band.

Hab. Transvaal, Piet Retief (*Crawshay*), 1 ♂; Natal, Tugela R. (*Reynolds*), 1 ♂; Cape Colony, Annshaw (*Miss F. Barrett*), 1 ♂ type. *Exp.* 22–24 millim.

5637. Ozarba consanguis. (Plate CLXI. fig. 13.)

Metachrostis consanguis, Hmpsn. Ann. S. Afr. Mus. ii. p. 413 (1902).

♀. Head and thorax rufous mixed with black-brown; palpi, pectus, legs, and abdomen greyish irrorated with brown, the fore tibiæ and the tarsi black ringed with white, the dorsal crest blackish. Fore wing with the basal half black tinged with grey and with some rufous at base of inner margin, the terminal half pinkish shading to deep rufous before the subterminal line; subbasal line represented by a black striga from costa; antemedial line black slightly defined on inner side by rufous, waved; medial line slightly defined on outer side by white, angled outwards in cell and slightly incurved below it; a slight black discoidal lunule; postmedial line only defined by the difference between the pink and rufous areas, excurved to vein 4, then incurved, some pale points beyond it on costa; subterminal line indistinct, pale, angled outwards at vein 7 and middle, some dark brown suffusion beyond it at discal and submedian folds; a terminal series of slight black lunules. Hind wing greyish suffused with fuscous brown; the underside ochreous white thickly irrorated with fuscous brown, a

slight discoidal point and diffused curved postmedial and subterminal lines.

Hab. Bechuanaland, N'Gami (*Lugard*), 1 ♀ type. *Exp.* 24 millim.

5638. Ozarba hemimelæna, n. n. (Plate CLXI. fig. 14.)

Tarache transversa, Pag. Voeltkow, Reise in Ost-Africa, ii. p. 109, pl. 6. f. 18 (1907, nec Moore, 1884).

Head and thorax black-brown with a slight rufous tinge; abdomen rufous suffused with dark brown leaving slight pale segmental lines; pectus, legs, and ventral surface of abdomen whitish tinged with rufous and irrorated with brown, the fore tibiæ and the tarsi black ringed with white. Fore wing with the basal half black-brown with a slight rufous tinge towards costa; subbasal line indistinct, double, sinuous, from costa to submedian fold; antemedial line double at costa, then indistinct, sinuous: the dark area bounded by a black line slightly defined on outer side by whitish, slightly angled outwards below costa, then oblique to median nervure where it is angled; the terminal half pale rufous, the terminal area suffused with dark brown except at apex; a black discoidal point; postmedial line double, excurved to vein 4, then incurved, some pale points beyond it on costa; subterminal line greyish defined on inner side by red-brown and with dark patch before it on costal area, slightly excurved below vein 7 and at middle; a punctiform black terminal line; cilia dark brown with a slight greyish line at base. Hind wing cupreous red-brown, the cilia with a fine whitish line at base: the underside pale rufous thickly irrorated with fuscous, a small black discoidal spot and curved postmedial line defined on outer side by pale rufous.

Ab. 1. Fore wing with the terminal half grey not tinged with rufous.

Hab. N.E. Rhodesia, Chambezi Valley (*Neave*), 1 ♂, 1 ♀; Mashonaland, Salisbury (*Marshall*), 1 ♀; S.W. Madagascar, Tulear. *Exp.* 24 millim.

5639. Ozarba bipartita. (Plate CLXI. fig. 15.)

Metachrostis bipartita, Hmpsn. Ann. S. Afr. Mus. ii. p. 413 (1902.)

Head and thorax rufous or pale olive-brown; abdomen fuscous with slight grey segmental lines, the basal crest rufous; pectus, legs, and ventral surface of abdomen white irrorated with brown, the fore tibiæ and the tarsi black ringed with white. Fore wing with the basal half rufous or pale olive-brown: subbasal line represented by slight double black striæ from costa: antemedial line with black point at costa, then indistinct, sinuous: the rufous area bounded by a sinuous black line angled outwards at lower angle of cell: the terminal half blue-grey with some fuscous suffusion on terminal

area; a black discoidal point; postmedial line hardly traceable, minutely waved, excurved to vein 4, then incurved, some white points beyond it on costa; subterminal line grey defined on inner side by black and with a blackish patch before it on costal area, excurved below costa, excurved and waved at middle; a punctiform black terminal line; cilia fuscous black. Hind wing fuscous brown tinged with grey; the cilia grey; the underside blue-grey thickly irrorated with fuscous brown, the base and costa tinged with ochreous, a dark discoidal spot and indistinct curved postmedial line.

Hab. Br. E. Africa, Neugia (*Crawshay*), 1 ♀; Mashonaland, Salisbury (*Marshall*), 1 ♂; Natal, Durban (*Leigh*), 1 ♂; Cape Colony, Annshaw (*Miss F. Barrett*), 1 ♀ type. *Exp.* 20–24 millim.

5640. **Ozarba socotrana**, n. sp. (Plate CLXI. fig. 16.)

♂. Head and thorax pale rufous; abdomen grey irrorated with fuscous; pectus, legs, and ventral surface of abdomen whitish irrorated with fuscous, the fore tibiæ and the tarsi blackish ringed with white. Fore wing pale rufous; the costal edge black towards base with a pale subbasal point on costa; antemedial line very indistinctly double, sinuous, a black point on the outer line at costa; medial line oblique with a black point at costa, a red-brown shade beyond it, extending below the cell to the postmedial line; an oblique black discoidal bar; postmedial line double, with black point on the inner line at costa, excurved to vein 4, then incurved; subterminal line very indistinct, pale, curved, with a dark shade before it on costal area. Hind wing whitish suffused with fuscous brown; the underside brownish white irrorated with brown.

Hab. Socotra, Adho Dimellus (*O.-Grant*), 1 ♂, Hadibu Plain (*O.-Grant*), 1 ♂ type. *Exp.* 14 millim.

5641. **Ozarba rosescens**, n. sp. (Plate CLXI. fig. 17.)

♂. Head and thorax pinkish mixed with grey-brown; abdomen grey suffused with brown, the basal crest pinkish; pectus, legs, and ventral surface of abdomen white irrorated with fuscous, the tarsi fuscous with slight white rings. Fore wing pinkish suffused with grey-brown; subbasal line indistinct, double filled in with whitish, bent inwards to costa and ending at submedian fold; antemedial line double filled in with white and defined on outer side by white, straight and somewhat inwardly oblique; reniform large with whitish annulus slightly defined by brown, strongly constricted at middle and with fine whitish streak in discal fold from it to termen; postmedial line double filled in with white, slightly bent inwards to costa and obliquo below vein 5, some white points beyond it on costa; subterminal line whitish, straight, crossed by slight whitish streaks on the veins extending to the cilia and

interrupted by slight dark points on termen. Hind wing grey-brown, the cilia white at base; the underside white irrorated with fuscous, the termen tinged with pink, a slight dark discoidal lunule, curved postmedial line, and traces of a diffused subterminal line.

Hab. Uganda, Entebbe (*Minchin*), 1 ♂ type, Ruwenzori (*Wollaston*), 1 ♂. *Exp.* 28 millim.

5642. **Ozarba isocampta**, n. sp. (Plate CLXI. fig. 18.)

Head and thorax red-brown; abdomen greyish thickly irrorated with fuscous; palpi, pectus, legs, and ventral surface of abdomen whitish tinged with rufous, the fore tibiæ and tarsi blackish ringed with white. Fore wing with the basal half grey thickly irrorated with brown, the outer half of medial area suffused with red-brown, the terminal area deep red-brown; antemedial line indistinct, brown defined on each side by whitish, slightly incurved at vein 1; a distinct straight dark medial line: reniform small with brown centre and whitish annulus, slightly constricted at middle; postmedial line double, defined on outer side by whitish, excurved from costa to vein 4, then incurved and slightly angled inwards at submedian fold; some slight whitish points beyond it on costa; subterminal line slight, whitish, very slightly excurved below vein 7, excurved at middle, then angled inwards and bent outwards to tornus; a fine black terminal line defined on inner side by a whitish line. Hind wing fuscous brown, the cilia pale; the underside grey thickly irrorated with fuscous, a blackish discoidal spot and indistinct diffused curved postmedial and subterminal lines.

Hab. Br. E. Africa, Taveta (*Rogers*), 2 ♀; Transvaal, Warmbad (*Janse*), 1 ♂ type. *Exp.* 18–20 millim.

5643. **Ozarba phæocroa.** (Plate CLXI. fig. 19.)

Ozarba phæocroa, Hmpsn. P. Z. S. 1910, p. 407.

♂. Head and thorax dark brown slightly mixed with grey; tarsi blackish ringed with white; abdomen brownish ochreous irrorated with fuscous. Fore wing fuscous tinged with greyish and irrorated with black; traces of a double minutely waved black subbasal line from costa to submedian fold; antemedial line double, black filled in with greyish, minutely waved, oblique; orbicular absent; reniform with faint whitish annulus, narrow and constricted at middle; postmedial line indistinctly double filled in with greyish, excurved from below costa to vein 4, then slightly incurved and oblique to inner margin near tornus, some white points beyond it on costa; subterminal line indistinct, whitish, very near termen, slightly excurved below vein 7 and at middle; a terminal series of small black lunules defined by a waved whitish line. Hind wing dark cupreous brown; a dark terminal line with faint pale spots before it; the underside brownish white thickly irrorated with

black, a black discoidal spot, traces of a pale curved postmedial line and a series of whitish spots just before termen.

Hab. Congo, Katanga, Kambove (*Neave*), 1 ♂ type. *Exp.* 26 millim.

5644. Ozarba nephroleuca, n. sp. (Plate CLXI. fig. 20.)

♂. Head bright rufous; thorax deep red-brown; abdomen fuscous brown; pectus, legs, and ventral surface of abdomen whitish suffused with red-brown, the fore tibiæ and tarsi black ringed with white. Fore wing bright rufous almost wholly suffused with deep red-brown; antemedial line indistinctly double, excurved at middle; a diffused dark medial line, oblique from costa to median nervure, then incurved; a round white discoidal spot defined by blackish; postmedial line indistinct, dark, bent outwards below costa, then minutely dentate and with white points on it to vein 4, then incurved and irregularly waved; subterminal line absent. Hind wing fuscous brown; the underside whitish suffused and irrorated with red-brown, a dark discoidal spot, traces of curved postmedial and subterminal lines and a terminal series of dark points.

Hab. Madagascar, Betsileo (*Cowan*), 1 ♂ type. *Exp.* 26 millim.

5645. Ozarba nigroviridis. (Plate CLXI. fig. 21.)

Metachrostis nigroviridis, Hmpsn. Ann. S. Afr. Mus. ii. p. 411 (1902).

Head and prothorax fuscous mixed with some green, the hinder half of thorax green; abdomen brownish grey irrorated with fuscous; pectus and base of abdomen whitish; legs blackish, the tarsi ringed with white. Fore wing deep yellow-green to postmedial line and the costal area to apex where it narrows to a point, the rest of terminal area fuscous brown; the base black, with oblique outer edge; antemedial line represented by a black point on costa; reniform small, fuscous brown, oblique, its lower extremity touching the postmedial line which is double filled in with whitish towards inner margin, excurved from costa to vein 4, then incurved and again excurved below submedian fold, the costal edge brownish beyond it; a faint dark subterminal line, excurved below vein 7 and at middle, then incurved; a fine black terminal line; cilia with a dark line at middle. Hind wing grey suffused and irrorated with fuscous brown; a fine dark terminal line; cilia with a fine whitish line at base. Underside of fore wing fuscous, the costal area towards apex and the terminal area cupreous red; hind wing whitish irrorated with black, the terminal half of costal area and the terminal area suffused with cupreous red, a blackish discoidal point, curved postmedial line, and terminal series of points.

Hab. Br. C. Africa, Chinde (*de Jersey*), 1 ♀, Mpondas (*de Jersey*), 1 ♂; Natal, Northdene, 1 ♂, Estcourt (*Hutchinson*), 1 ♀; Cape Colony, Transkei (*Miss F. Barrett*), 6 ♂, 6 ♀ type, Annshaw (*Miss F. Barrett*), 1 ♂, 1 ♀. *Exp.* 18–22 millim.

*5646. Ozarba cinerea. (Plate CLXI. fig. 22.)

Thalpochares cinera, Auriv. Œfv. Vet.-Ak. Förh. 1879, p. 68.

Head and thorax pale grey slightly tinged with brown; abdomen ochreous with slight brown segmental lines. Fore wing pale grey slightly irrorated with brown; slight subbasal brown points below costa and cell; antemedial line double, brown, waved; medial line brown, incurved in cell and below median nervure and slightly excurved above inner margin; reniform very faintly defined by brown; postmedial line double at costa, then single, dentate and evenly curved; subterminal line defined on inner side by brown, slightly excurved at middle; a dark terminal line. Hind wing yellow, the terminal area tinged with rufous, a fine curved rufous postmedial line.

Hab. Damaraland (*de Vylder*), type † in Mus. Stockholm. *Exp.* 26 millim.

5647. Ozarba cryptochrysea. (Plate CLXI. fig. 23.)

Metachrostis cryptochrysea, Hmpsn. Ann. S. Afr. Mus. ii. p. 409 (1902).
Taracha centralis, Pag. Voeltzkow, Reise in Ost-Africa, ii. p. 109, pl. 6. f. 20 (1907).

Head and thorax fuscous brown slightly mixed with greyish; abdomen grey suffused with fuscous leaving pale segmental lines; palpi at base, pectus, legs, and ventral surface of abdomen white, the legs irrorated with black, the fore tibiæ and the tarsi black ringed with white. Fore wing with the basal area brownish grey irrorated with black, the medial area deep chocolate-brown, the terminal area chocolate-brown tinged with grey; subbasal line slight, black, from costa to submedian fold, followed by a blackish mark on costa; antemedial line indistinct, double filled in with grey and defined by grey on outer side, minutely waved; reniform small, greyish defined at sides by black, placed on the black medial line; postmedial line double filled in with grey, obliquely excurved and ending near tornus, some slight pale points beyond it on costa; subterminal line greyish tinged with yellow towards costa, angled inwards at discal fold to near postmedial line and with small black spots above and below its angle, ending at tornus; a punctiform black terminal line with a blackish patch at discal fold; cilia fuscous, tipped with white at apex. Hind wing orange; diffused black streaks in cell, submedian fold and on vein 1; a curved black medial line; the terminal area black, narrowing to tornus and with slight yellow subterminal marks at discal and submedian folds; cilia fuscous, tipped with white at apex. Underside of fore wing yellow with black suffusion in and below cell, diffused medial band, oblique postmedial line from costa to vein 2 and apical black patch with some streaks below it; hind wing with sinuous medial line and minutely dentate postmedial line from costa to submedian fold, a small discoidal lunule, the terminal area as above.

Hab. Mozambique, Delagoa Bay, type † in Coll. Druce; Transvaal, Kranspitz (*Janse*), 3 ♂, Rietfontein (*Janse*), 1 ♂; S.W. Madagascar, Tulear. *Exp.* 22 millim.

5648. **Ozarba toxotis**, n. sp. (Plate CLXI. fig. 24.)

♀. Head and thorax red-brown; palpi blackish with slight white ring at extremity of 2nd joint; abdomen whitish tinged with rufous and irrorated with fuscous; pectus, legs, and ventral surface of abdomen whitish irrorated with fuscous, the fore tibiæ and tarsi black ringed with whitish. Fore wing rufous with slight dark irroration, the terminal area redder; faint traces of a double antemedial line incurved at vein 1 and of a dark medial line; a small blackish discoidal lunule; postmedial line indistinctly double, evenly curved; an indistinct pale subterminal line defined on inner side by slight dark marks, excurved at middle, then incurved and bent outwards to tornus; a terminal series of black points. Hind wing fuscous brown, the cilia with a fine pale line at base; the underside grey thickly irrorated with fuscous, an indistinct dark discoidal lunule.

Hab. Br. C. Africa, Lake Nyasa (*de Jersey*), 1 ♀ type. *Exp.* 24 millim.

*5649. **Ozarba pyraspis.** (Plate CLXI. fig. 25.)

Thalpochares pyraspis, Meyr. Tr. R. Soc. S. Austr. xiv. p. 196 (1891).

♂. Head and thorax black slightly mixed with orange-brown; pectus and legs orange and brown, the tarsi with pale bands; abdomen dorsally brown, ventrally orange. Fore wing with the basal half black-brown with waved antemedial and medial black lines, the former with some rufous scales on its inner edge, the outer edge of black area dentate outwards at vein 3, then sinuous to inner margin; the terminal half pale rufous, whitish on costal half beyond the black area; a pale waved postmedial line bent outwards below costa and excurved at veins 7 and 5, then incurved; an irregularly dentate subterminal line with some black suffusion across it from costa to termen before apex; a terminal series of black points; cilia pale in places. Hind wing deep orange with broad black-brown terminal band. Underside orange; fore wing with the costal and terminal areas brown, some pale spots on costa towards apex; hind wing with small discoidal lunule, waved postmedial line from costa to vein 2, the apical area suffused with brown, a subterminal series of whitish points.

Hab. Queensland, Brisbane in Coll. Turner. *Exp.* 18 millim.

5650. **Ozarba fulvescens**, n. sp. (Plate CLXI. fig. 26.)

♂. Head, thorax, and abdomen ochreous white suffused in parts with red-brown; pectus and legs ochreous white, the tarsi ochreous

brown slightly ringed with white. Fore wing ochreous white slightly tinged with rufous, the basal half of costa brownish, the outer half of medial area and the terminal area brown; a faint inwardly oblique brown antemedial line with black point on costa; a slight oblique black discoidal striga; postmedial line brown, angled outwards below costa and at middle and inwards at discal fold, incurved below vein 4, some white points with slight brown streaks between them beyond it on costa; subterminal line whitish with brown suffusion before and beyond it, minutely waved, excurved at middle; cilia greyish mixed with brown and with dark line at middle. Hind wing orange-yellow, the apex tinged with brown, a faint brown subterminal line and fine terminal line; cilia yellowish tinged with brown and with fine brown line at middle. Underside of fore wing orange irrorated with brown, the inner area white, a dark shade from costa to lower angle of cell; hind wing orange slightly irrorated with brown, a terminal series of slight black lunules.

Hab. Transvaal (*Pead*), 1 ♂ type. *Exp.* 20 millim.

5651. **Ozarba flavipennis**, n. sp. (Plate CLXI. fig. 27.)

Head, thorax, and abdomen pale rufous irrorated with fuscous; pectus and legs whitish irrorated with brown, the tarsi blackish ringed with white. Fore wing with the basal half grey tinged with rufous and irrorated with fuscous, the terminal half red-brown; subbasal line represented by two slight black striæ from costa; antemedial line indistinct, blackish, waved; a dark medial slightly sinuous line bounding the grey area: two blackish discoidal points; postmedial line double, excurved below costa and at middle and slightly angled inwards at discal and submedian folds, some pale points beyond it on costa; subterminal line whitish defined on inner side by blackish, very slightly angled outwards at vein 7, excurved at middle and bent outwards to tornus; a terminal series of minute black points; cilia with a fine pale line near tips. Hind wing yellow irrorated with brown and suffused with reddish brown on costal and terminal areas; a curved brown postmedial line; cilia whitish with brown lines near base and tips; the underside yellow irrorated with fuscous brown especially on costal area except towards base, diffused curved postmedial and subterminal lines, the latter ending at vein 2.

Hab. Cape Colony (*Drage*), 1 ♂, Annshaw (*Miss F. Barrett*), 1 ♂, 1 ♀ type. *Exp.* 24 millim.

5652. **Ozarba heliastis.** (Plate CLXI. fig. 28.)

Metachrostis heliastis, Hmpsn. Ann. S. Afr. Mus. ii. p. 410 (1902).

Head and thorax greyish mixed with rufous; abdomen orange with some rufous at base of dorsum; pectus, legs, and ventral surface of abdomen white, the fore tibiæ and the tarsi fuscous

ringed with white. Fore wing with the basal half grey tinged with rufous, the terminal half bright rufous, with some ochreous in parts; subbasal line represented by double dark striæ filled in with whitish; antemedial line indistinct, double filled in with whitish and defined by whitish on outer side, with dark striæ at costa, inwardly oblique from just below costa; orbicular represented by two obliquely placed whitish points defined by blackish; reniform with silvery white annulus slightly defined by black, oblique, narrow; a waved dark medial line; postmedial line indistinctly double filled in with whitish, obliquely downcurved from costa to vein 6, slightly incurved at discal fold, incurved and minutely waved below vein 4, some white points beyond it on costa and an angled black mark at discal fold defined on outer side by whitish; subterminal line indistinct, whitish, excurved below vein 7 and at middle and ending at tornus; a punctiform black terminal line; cilia fuscous brown with some whitish at base and white patches at tips at apex and at discal fold. Hind wing deep orange with some brownish at base and a fuscous patch at tips; a fine black terminal line; cilia fuscous with some white at tips at apex, discal and submedian folds. Underside of fore wing orange with the inner area whitish, a black discoidal bar, postmedial striga from costa, and subterminal and apical black patch with white points on costa and yellow subterminal points; hind wing with the costal area tinged with red, a small black discoidal spot, sinuous red postmedial line from costa to discal fold, black apical patch with yellow subterminal spots on it, and black terminal line.

Hab. Br. E. Africa, Teita (*Jackson*), 1 ♂ type, Machakos (*Craushay*), 1 ♂; Transvaal, Warmbad (*Janse*), 1 ♂; Orange R. Colony, Bloemfontein (*Eckersley*), 1 ♂; Cape Colony, Transkei (*Miss F. Barrett*), 1 ♀. *Exp.* 18–22 millim.

5653. Ozarba densa. (Plate CLXI. fig. 29.)

Panemeria densa, Wlk. xxxiii. 773 (1865).

Head and thorax reddish brown mixed with greyish and black; abdomen yellowish suffused with black and with yellow segmental lines; palpi, pectus, legs, and ventral surface of abdomen white tinged with rufous, the fore tibiæ and the tarsi black ringed with white. Fore wing olive-brown mixed with greyish and black; subbasal line indistinct, blackish, from costa to submedian fold; antemedial line indistinct, double, angled outwards below costa and inwards at vein 1; orbicular represented by obliquely placed whitish points defined by black in cell and on median nervure; reniform with brown centre and whitish annulus slightly defined by black, rather narrow and oblique; an oblique black striga from middle of costa and strongly waved line from lower angle of cell to inner margin; postmedial line double filled in with whitish, expanding and yellow at costa on which there are two black points, excurved below costa, slightly angled inwards at discal fold.

incurved below vein 4 and angled outwards at vein 1, some pale points beyond it on costa; subterminal line slight, whitish, excurved below vein 7, angled inwards at discal fold and expanding into a patch defined on inner side by black, incurved below vein 4 and ending above tornus; a fine black terminal line defined on inner side by grey except at apex; cilia red-brown with a black line at middle, the tips white at apex. Hind wing deep orange with short brown streaks at base and black streak on vein 1 to near tornus; a broad black subterminal band expanding to apex and ending at submedian fold and a black spot above tornus; a black terminal line; cilia black-brown with some ochreous at tips and a white patch at apex. Underside of fore wing orange with black discoidal spot, medial and postmedial spots on costa and large apical patch with yellow spot on costa, the black extending subterminally to vein 2; hind wing with black discoidal spot and subterminal band extending to vein 2 and constricted at middle, some black streaks beyond it towards apex, two small obliquely placed spots in submedian interspace and a lunulate terminal line.

Hab. Cape Colony (*Sir A. Smith*, *White*), 1 ♂, 1 ♀ type. *Exp.* ♂ 22, ♀ 24 millim.

5654. Ozarba acclivis.

Acontia acclivis, Feld. Reis. Nov. pl. 108. f. 24 (1874).

Head and thorax ochreous tinged with rufous and with slight blackish marks; abdomen orange dorsally banded with fuscous; palpi, pectus, legs, and ventral surface of abdomen white, the fore tibiæ and the tarsi black ringed with white. Fore wing rufous mixed with yellowish white and with yellowish white patches on costa beyond middle and on tornal area; subbasal line represented by a dark striga from costa defined on each side by yellowish white; antemedial line double filled in with yellowish white and defined on outer side by yellowish white, slightly angled outwards below costa, then waved; orbicular represented by minute obliquely placed yellowish spots defined by blackish in cell and on median nervure; reniform with rufous centre and yellowish white annulus, constricted at middle; an oblique sinuous black line from lower angle of cell to inner margin with silvery blue patches beyond it; postmedial line double filled in with yellowish white, expanding at costa, slightly angled inwards at discal fold, incurved and minutely waved below vein 4, a yellowish point beyond it on costa and a sinuous blackish shade between veins 7 and 5; subterminal line whitish, excurved below vein 7 and at middle, then incurved and ending at tornus; a small black apical mark and blackish terminal line defined on inner side by yellowish; cilia white at apex, blackish below apex and rufous on inner half. Hind wing orange, some brownish streaks at base, a blackish apical patch and black subterminal bar between discal fold and vein 2, in female connected with the apical patch; a black terminal line except at tornus; cilia blackish, white at tips and with white apical patch. Underside of

fore wing orange with black discoidal point, sinuous postmedial line from costa to discal fold and apical patch with some white points on costa and yellow subterminal spot; hind wing with black discoidal point, postmedial striæ from costa, in discal fold and below vein 2 and subterminal band ending at vein 2, dilated at costa and with black streaks beyond it towards apex.

Hab. Orange R. Colony, Bloemfontein (*Eckersley*), 2 ♂, 1 ♀, Kroonstad (*Eckersley*), 1 ♀; Cape Colony, Annshaw (*Miss F. Barrett*), 3 ♂. *Exp.* 22–26 millim.

5655. Ozarba perssoni. (Plate CLXI. fig. 30.)

Microphysa perssoni, Wllgrn. Œfv. Vet.-Ak. Förh. 1875, p. 114.
Microphysa mustelina, Wllgrn. Œfv. Vet.-Ak. Förh. 1875, p. 115.

♂. Head and thorax rufous mixed with red-brown; abdomen orange with dorsal blackish bands; palpi at base, pectus, legs, and ventral surface of abdomen white, the fore and hind tibiæ and the tarsi banded with black. Fore wing with the basal area rufous suffused with red-brown, the rest of wing red-brown, the medial area suffused with blackish; subbasal line double, waved, from costa to submedian fold; antemedial line double, waved, defined on outer side by rufous; orbicular represented by minute obliquely placed whitish spots defined by black in cell and on median nervure; reniform with red-brown centre and yellowish white annulus incompletely defined by black, narrow, oblique, and constricted at middle; medial line black, oblique from costa to median nervure, angled inwards in submedian fold and outwards at vein 1, a blue-black patch beyond it in submedian interspace; postmedial line double, expanding and filled in with yellow at costa, slightly angled inwards at discal fold, incurved and minutely waved below vein 4, some white points beyond it on costa and a black shade from below costa to vein 4, angled inwards in discal fold; subterminal line yellowish, angled inwards in discal fold, then minutely waved, excurved at middle and ending at tornus; a small black apical patch and punctiform terminal line defined on inner side by yellowish; cilia dark red-brown with some yellowish at base, dark medial line and white patch at apex. Hind wing deep orange with diffused blackish streaks at base and black streaks on inner margin; an oblique subterminal black bar from costa with black streak beyond it below apex, black bar between vein 3 and submedian fold and small spot at tornus; a fine black terminal line except at tornus; cilia blackish with yellow spots at base at middle, white patch at tips at apex and whitish spot at middle. Underside of fore wing orange with black point in middle of cell and discal bar, some black irroration along terminal part of median nervure and apical patch with yellow spot on costa, extending subterminally to vein 4; hind wing with discoidal black spot, postmedial spots on costa and in discal and submedian folds, the terminal area as above.

Hab. Transvaal (*Ross*), 1 ♂; Natal, Estcourt (*Hutchinson*), 4 ♂. *Exp.* 30 millim.

5656. Ozarba sancta. (Plate CLXI. fig. 31.)

Acontiola sancta, Staud. Iris, xii. p. 382, pl. 5. f. 4 (1899); id. Cat. Lep. pal. p. 225.

♂. Head and thorax white mixed with rufous; abdomen yellowish tinged with brown; palpi, pectus, legs, and ventral surface of abdomen white, the tarsi brown ringed with white. Fore wing white suffused with ochreous and rufous and slightly irrorated with dark brown; subbasal line represented by a white striga from costa; antemedial line white slightly defined at sides by brown, somewhat sinuous and slightly oblique; orbicular with white annulus slightly defined by brown, round, a minute white spot beyond it on median nervure; reniform with white annulus incompletely defined by black, narrow and somewhat oblique; a blackish medial shade, oblique from costa to reniform and inwardly oblique below the cell; postmedial line double filled in with white, dilated at costa, oblique to vein 6, slightly incurved at discal fold, incurved and minutely waved below vein 4, some white points beyond it on costa and a waved blackish shade from below costa to vein 4; subterminal line white defined on inner side by fuscous brown forming a diffused patch on costal area, excurved below vein 7 and at middle and angled inwards at discal fold; a terminal series of minute black lunules defined on inner side by white; cilia black with white patches below apex and at middle. Hind wing golden yellow with slight dark irroration on apical area; a fine waved black terminal line; cilia chequered fuscous and white. Underside of fore wing yellow, the inner area whitish, a dark point in middle of cell, discoidal striga, postmedial point on costa and apical brown patch with some yellow points on costa; hind wing with discoidal point, postmedial point on costa and subterminal striga from costa.

♀. Hind wing with the basal half and termen irrorated with fuscous, a diffused fuscous subterminal band interrupted at vein 2 and submedian fold.

Hab. Palestine, 1 ♂; Aden (*Chevalier*), 1 ♀; Arabia, Muscat (*Jayaker*), 1 ♀; Persian Gulf, Fao (*Cuming*), 1 ♂. *Exp.* 18 millim.

5657. Ozarba varia. (Plate CLXI. fig. 32.)

Panemeria varia, Wlk. xxxiii. 772 (1865).

Head and thorax red-brown mixed with some whitish; abdomen yellow suffused with brown; palpi, pectus, legs, and ventral surface of abdomen yellow irrorated with red-brown. Fore wing red-brown mixed with some yellow and whitish; subbasal line represented by two slight black points on costa; antemedial line double, waved, angled inwards in cell and submedian fold; orbicular represented by obliquely placed yellowish point in cell and white point on median nervure incompletely defined by black; reniform with brown centre and white annulus incompletely defined by black, its

lower extremity somewhat produced; a dark medial shade, blackish to reniform and with minutely waved black line on its outer edge from lower angle of cell to inner margin; postmedial line double filled in with yellowish, obliquely downcurved from costa to vein 6, slightly angled inwards at discal fold, incurved and minutely waved below vein 4; the postmedial area with black shade between veins 7 and 4, angled inwards in discal fold and with some whitish beyond it, some whitish in submedian interspace before the subterminal line, which is white defined on inner side by brown and excurved below vein 7 and at middle; a black terminal line; cilia with some whitish at base below apex and at middle. Hind wing orange-yellow with a small patch of brown suffusion at apex and slight subterminal streak below it in discal fold, or an obsolescent and interrupted subterminal band; a punctiform blackish terminal line from apex to submedian fold; cilia brown from apex to submedian fold, some white at tips at apex and with some brown at tornus. Underside of fore wing yellow with dark point in middle of cell and discoidal bar, medial and postmedial points on costa, the terminal area brown from costa to vein 3 with subterminal series of yellowish white streaks; hind wing with slight black discoidal striga, subterminal dentate band from costa to vein 5, and terminal series of minute lunules.

Hab. Transvaal, Pochefstroom (*Roberts*), 1 ♀; Cape Colony (*Sir A. Smith*), 1 ♂ type, Bushman L. (*Alston*), 1 ♂, Annshaw (*Miss F. Barrett*), 1 ♀. *Exp.* 20–24 millim.

5658. Ozarba subterminalis. (Plate CLXII. fig. 1.)

Ozarba subterminalis, Hmpsn. P. Z. S. 1910, p. 407.

♀. Head, thorax, and abdomen black-brown mixed with white; palpi, pectus, legs, and ventral surface of abdomen yellowish white irrorated with brown. Fore wing black-brown mixed with white; subbasal line white, oblique, dentate, from costa to median nervure; antemedial line double filled in with white and defined by white on outer side except at costa, slightly angled outwards below costa, then minutely waved; orbicular represented by minute obliquely placed white spots in cell and on median nervure with black points in centres; reniform with brown centre and white annulus, narrow, constricted at middle and rather oblique: postmedial line double filled in with white, oblique from costa to vein 6, then inwardly oblique, minutely waved and slightly angled outwards at vein 1, some white points beyond it on costa; subterminal line white, minutely waved, slightly excurved below vein 7, incurved below vein 3 and bent outwards to tornus; a black terminal line defined on inner side by white except at apex. Hind wing orange, the base suffused with brown extending above vein 1 to the rather diffused dark postmedial line with a diffused dark patch beyond it at apex; a black terminal line except at tornus; cilia white and

black. Underside of fore wing yellow suffused and irrorated with brown, the inner area whitish, a dark discoidal spot, indistinct postmedial and subterminal lines and a diffused apical patch; hind wing with the costal and inner areas irrorated with fuscous, a black discoidal spot, indistinct and incomplete postmedial line and diffused subterminal band.

♂. Fore wing without white line before the terminal black points; hind wing with the brown suffusion at base slight, the subterminal band more or less interrupted and with streaks beyond it towards apex.

Hab. N.E. Rhodesia, Up. Luangwa Valley; Mashonaland, Salisbury (*Marshall*), 1 ♀ type; Bechuanaland, L. N'gami (*Luyard*), 1 ♂; Transvaal, Warmbad (*Janse*), 1 ♂. *Exp.* 20–24 millim.

5659. Ozarba apicalis. (Plate CLXII. fig. 2.)

Ozarba apicalis, Hmpsn. P. Z. S. 1910, p. 408.

Head and thorax fuscous brown mixed with greyish; abdomen fulvous suffused with fuscous and with white segmental lines on basal segments; pectus, legs, and ventral surface of abdomen whitish irrorated with brown, the fore tibiæ and the tarsi black ringed with white. Fore wing reddish brown suffused and irrorated with fuscous and mixed with some whitish; subbasal line represented by slight obliquely placed whitish spots below costa and in cell; antemedial line double filled in with white and defined on outer side by white, minutely waved and slightly curved; orbicular represented by obliquely placed whitish points defined by black in cell and on median nervure; reniform with brown centre and white annulus, narrow and slightly angled inwards on median nervure; an indistinct oblique waved dark line from lower angle of cell to inner margin; postmedial line double filled in with white, minutely waved, oblique from costa to vein 6, slightly incurved at discal fold, incurved below vein 4 and slightly angled outwards at vein 1, some white points beyond it on costa; subterminal line white, slightly angled inwards at discal fold, incurved below vein 3 and bent outwards to tornus towards which it is yellowish; a minutely waved black terminal line defined on inner side by yellow except at apex; cilia blackish with a white patch at apex. Hind wing deep orange; diffused brown streaks at base in and below cell and on inner area; a large black apical patch and obsolescent subterminal line; a black terminal line; cilia blackish with whitish patch at tips below apex. Underside of fore wing orange with black discoidal striga, postmedial point on costa and apical patch with white points on costa and slight subterminal yellow marks, the patch extending subterminally to vein 4, a terminal series of minute black lunules; hind wing with the costal area irrorated with red, a black discoidal point, traces of red postmedial line from costa to discal fold and with black points at costa and discal fold.

subterminal black band from costa to vein 4 with streaks beyond it towards apex.

Hab. Br. E. Africa, Bondoni Plains (*Crawshay*), 1 ♂, Machakos (*Crawshay*), 1 ♂, 4 ♀ type: N.E. Rhodesia, Luangwa Distr., Up. Luangwa Valley, Chambezi Valley. *Exp.* 24–26 millim.

5660. Ozarba binorbis, n. sp. (Plate CLXII. fig. 3.)

♂. Head and thorax dark red-brown mixed with orange; abdomen orange with dark dorsal bands; palpi except at tips, pectus and legs yellow. the fore and mid tibiæ and the tarsi black ringed with white. Fore wing red-brown tinged with grey and suffused with fuscous, some orange at base; subbasal line indistinct, double filled in with orange, waved, from costa to submedian fold; antemedial line double filled in with yellowish at costa, slightly angled outwards below costa, then waved; orbicular represented by minute obliquely placed yellowish spots defined by black in cell and on median nervure; reniform with fuscous centre and greyish annulus defined by black, narrow, oblique, and constricted at middle; an oblique black medial shade from costa to reniform and waved line from lower angle of cell to inner margin; postmedial line double, filled in with yellowish towards costa, oblique from costa to vein 6, angled inwards at discal fold, incurved and sinuous below vein 4, some yellow points beyond it on costa; subterminal line slight, greyish, yellow at costa, minutely waved, angled inwards at discal fold, excurved at middle, then incurved; a terminal series of black points; cilia black-brown. Hind wing orange suffused with red-brown; an obliquely curved dark postmedial line; a blackish subterminal band, almost interrupted at submedian fold, with dentate outer edge and dark streaks beyond it on the veins; a black terminal line; cilia greyish fuscous, white at tips at apex. Underside of fore wing orange, the inner area white, the costal edge black, a wedge-shaped fuscous patch in, below, and beyond cell, a black postmedial band except on inner area, the terminal area fuscous except at tornus with yellowish subterminal streaks on the veins; hind wing with black discoidal spot with bar above it from costa and maculate line from beyond lower angle of cell to submedian fold, a subterminal band from costa to submedian fold with black streaks beyond it on the veins.

Ab. 1. Hind wing with the postmedial line almost obsolete, the subterminal band reduced to streaks.

Hab. Transvaal (*Pead*), 2 ♂ type. *Exp.* 32 millim.

5661. Ozarba bisexualis, n. sp. (Plate CLXII. fig. 4 ♂, 5 ♀.)

♂. Head and thorax black-brown mixed with some orange; abdomen orange with blackish dorsal bands; palpi yellow with dark bands on 2nd and 3rd segments; pectus and legs yellow irrorated with brown, the tibiæ and tarsi banded with black.

Fore wing black-brown with a leaden blue gloss, some orange on basal area; subbasal line double filled in with orange, waved, from costa to vein 1; antemedial line double, filled in with orange at costa, slightly angled outwards below costa, then waved; orbicular represented by minute obliquely placed yellow spots defined by black in cell and on median nervure; reniform defined by black and with slight orange annulus, narrow, its lower extremity produced; an oblique medial black shade from costa to reniform and sinuous line from lower angle of cell to inner margin; postmedial line double, filled in with yellow at costa, excurved below costa and at middle, angled inwards at discal fold, incurved and minutely waved below vein 4, some yellow points beyond it on costa and a black line from costa to vein 4, angled outwards at vein 6 and inwards at discal fold; subterminal line faint, yellowish, angled inwards at discal fold and excurved at middle, a yellow patch beyond it at apex; a terminal series of black points with yellow striæ before them; cilia leaden black. Hind wing golden yellow, the base slightly suffused with brown, the inner margin with dark streak; a dark postmedial line from vein 2 to inner margin; a fine black terminal line; cilia leaden black with white patch at apex crossed by a black streak. Underside of fore wing orange, the inner area whitish, the costal edge black, a wedge-shaped fuscous patch in and below cell met by a black band from costa to end of cell, a subterminal triangular patch from costa to vein 5 and a small apical patch; hind wing with small discoidal spot with black bar above it from costa and subterminal band from costa to vein 5.

♀. Hind wing black with subterminal orange band crossed by black streaks towards apex and with rather dentate inner edge; underside of fore wing with the black markings more extensive, the subterminal band entire; hind wing with postmedial and subterminal black bands from costa to above tornus towards which they narrow.

Hab. Mashonaland, Umtali (*Marshall*), 1 ♂ type, Salisbury (*Marshall*), 2 ♀. *Exp.* 28 millim.

5662. **Ozarba hypoxantha.** (Plate CLXII. figs. 6 ♂, 7 ♀.)

Microphasa hypoxantha, Wllgrn. Wien. Ent. Mon. iv. p. 173 (1860).
Metachrostis cultuosa, Dist. A. M. N. H. (7) i. p. 224 (1898).

♂. Head and thorax dark reddish brown mixed with yellowish; abdomen yellow with blackish dorsal bands; palpi at base, pectus legs, and ventral surface of abdomen yellowish white, the fore and mid tibiæ and the tarsi banded with blackish. Fore wing reddish brown tinged with grey and suffused with fuscous; subbasal line indistinct, double, from costa to submedian fold; antemedial line double, slightly angled outwards below costa, then minutely waved; orbicular represented by faint minute obliquely placed greyish spots defined by blackish in cell and on median nervure; reniform

greyish defined by black and with some fuscous in centre, constricted at middle; a black medial shade, diffused and oblique from costa to reniform, then sinuous; postmedial line double, oblique from costa to vein 6, slightly angled inwards at discal fold, incurved below vein 4 and slightly angled outwards at vein 1, some yellow points beyond it on costa, and a waved black shade from below costa to vein 4; subterminal line indistinct, whitish, minutely waved, slightly excurved below vein 7 and at middle, and with some yellowish beyond it at apex and tornus; a punctiform black terminal line and small spot at apex; cilia greyish fuscous. Hind wing orange slightly irrorated with brown; a curved brown medial band almost interrupted at discocellulars, and rather diffused subterminal band with dentate outer edge; a fine black terminal line; cilia fuscous with a white patch at apex. Underside of fore wing orange with the inner area whitish, a diffused fuscous wedge-shaped patch in and below end of cell, met by a black band from costa at end of cell, a wedge-shaped subterminal band from costa to vein 2, its lower part broken up into streaks and a small apical patch; hind wing with medial black band from costa to submedian fold, and subterminal band ending at vein 2, its outer edge dentate.

Ab. 1. Hind wing with the subterminal band reduced to a series of streaks.

Ab. 2. Hind wing with the subterminal band reduced to slight streaks towards costa.

♀. Hind wing wholly suffused with black, the subterminal band faintly traceable and defined by slight orange marks before it at submedian fold and above inner margin and a small patch beyond it at submedian fold.

Ab. 3. Hind wing with some orange on inner basal area and very incomplete orange postmedial and terminal bands.

Hab. Br. E. Africa, Machakos (*Crawshay*), 2 ♂; Uganda, Mulema (*Doggett*), 3 ♂: Mashonaland, Salisbury (*Marshall*), 1 ♂: Transvaal, Zoutspanberg (*Janse*), 1 ♂, Beynspruit (*Janse*), 1 ♂; Zululand, Tugela R. (*Reynolds*), 1 ♀: Natal, Stanger (*Dobree*), 1 ♂, Verulam (*Trimen*), 1 ♀, Estcourt (*Hutchinson*), 1 ♀, Durban (*Bowker*, *Trimen*, *Jeffery*, *Leigh*), 3 ♂, 1 ♀; Orange R. Colony Bloemfontein (*Eckersley*), 2 ♀; Basutoland, Maseru (*Crawshay*), 2 ♂, 1 ♀; Cape Colony, Annshaw (*Miss F. Barrett*), 1 ♂. *Exp.* 20–26 millim.

5663. Ozarba moldavicola.

Acontia moldavicola, Herr.-Schäff. Eur. Schmett. ii. p. 419, Noct. ff. 224–(1845); Staud. Cat. Lep. pal. p. 225.
Acontia euboica, Mill. Icones, iii. p. 437, pl. 154. f. 1 (1877).

Head and thorax black-brown mixed with some white; abdomen black-brown with white segmental lines; palpi white mixed with blackish; pectus, legs, and ventral surface of abdomen irrorated

with white, the tarsi black ringed with white. Fore wing black-brown tinged with grey and slightly irrorated with whitish; subbasal line represented by a white point on costa and blackish striga in cell; antemedial line black defined on outer side by white and with white point beyond it on costa, minutely waved; reniform represented by two white bars slightly bent inwards and outwards at median nervure and defined at sides by blackish, a whitish striga above it from costa and a blackish line from lower angle of cell to inner margin, incurved in submedian interspace and angled outwards at vein 1? postmedial line black, double and filled in with white at costa, then defined on each side slightly by greyish, oblique to vein 6, slightly incurved at discal fold, incurved below vein 4, and angled outwards at vein 1, some white points beyond it on costa; subterminal line white defined on inner side at middle by a blackish shade, excurved below vein 7 and at middle, angled inwards at discal fold and bent outwards to tornus; a terminal black line defined on inner side by white except at apex; cilia white with black patches and bars and small black spots at tips. Hind wing black-brown with very faint whitish postmedial line from discal fold to inner margin; some white irroration on costa and termen towards apex, and a curved white subterminal bar in submedian interspace; ciiia with white tips and some white at base at middle. Underside of fore wing with white postmedial line excurved below costa and white subterminal band broken up into obsolescent spots except at costa and tornus; hind wing irrorated with white, a curved white postmedial line and subterminal maculate band.

Ab. 1. *euboica*. Darker; fore wing less distinctly marked.

Hab. Italy, Calabria; Dalmatia, Leech Coll.; Greece, Zeller, Frey, and Leech Colls., Parnassus (*Elwes*); ? Moldavia; Balcan States; Asia Minor, Taurus; Syria, Mardin; Mesopotamia. *Exp.* 22–26 millim.

5664. Ozarba lascivalis. (Plate CLXII. fig. 8.)

Chorentis lascivalis, Led. Verh. zool.-bot. Ges. Wien, 1855, p. 223, pl. 5. f. 7; Staud. Cat. Lep. pal. p. 225.

Head and thorax black-brown slightly mixed with grey; abdomen black-brown; palpi white irrorated with brown; pectus, legs, and ventral surface of abdomen irrorated with grey, the tarsi black ringed with white. Fore wing black-brown suffused with leaden grey and mixed with some ochreous; subbasal line represented by black striæ from costa and in cell defined by yellowish; antemedial line black defined on outer side by yellow, minutely dentate; a minute irregular yellowish spot below middle of cell defined by black; reniform with slight yellowish annulus defined by black, constricted at middle; a black line from lower angle of cell to inner margin, angled inwards in submedian fold; postmedial line double filled in with yellow, oblique from costa to vein 6, angled

inwards in discal fold, incurved below vein 4, and angled outwards at vein 1, some white points beyond it on costa; subterminal line indistinct, formed of yellowish scales slightly defined on each side by black, excurved below vein 7 and at middle; cilia with white patches at apex and middle. Hind wing black-brown with yellow postmedial line from discal fold to inner margin; cilia with some grey mixed and with white patch at tips below apex. Underside of fore wing black with white postmedial line, oblique from costa to vein 6, then erect, and small white subterminal spots on costa and in submedian fold; hind wing with white postmedial line oblique from costa to vein 6 and not reaching inner margin and slight subterminal marks below apex and at discal and submedian folds.

Hab. Greece; Asia Minor, Pontus, Taurus, Amanus Mts., 1 ♀; Syria, 2 ♂, 1 ♀, Leech Coll., Mardin. *Exp.* 16–18 millim.

5665. Ozarba albimarginata. (Plate CLXII. fig. 9.)

Metachrostis albimarginata, Hmpsn. Moths Ind. iv. p. 515 (1896).

♂. Head and thorax pale brown mixed with grey; abdomen grey suffused with pale red-brown; pectus, legs, and ventral surface of abdomen white tinged with brown, the fore tibiæ and the tarsi fuscous ringed with white. Fore wing whitish suffused with pale red-brown and slightly irrorated with black; subbasal line slight, blackish, from costa to submedian fold, the costa beyond it blackish; antemedial line very indistinctly double filled in with whitish and with some black scales on its inner edge at middle, slightly sinuous; orbicular with white annulus incompletely defined by black and its centre defined by some black scales, round, a minute white spot defined on outer side by black beyond it on median nervure; reniform with white annulus defined at sides by some black, constricted at middle, and slightly angled inwards on median nervure; a blackish medial line from cell to inner margin; postmedial line double filled in with white, expanding at costa, obliquely downcurved from costa to vein 6, slightly angled inwards at discal fold, incurved and minutely waved below vein 4, diffused black marks beyond it below costa and at middle; subterminal line white, slightly angled outwards at vein 7 and excurved at middle; a punctiform black terminal line slightly defined on inner side by white. Hind wing whitish suffused with red-brown; a faint whitish postmedial line except towards costa; a dark terminal line defined on inner side by a whitish band except at apex; cilia whitish; the underside white tinged with rufous and irrorated with brown, a black discoidal bar, curved postmedial line, and diffused maculate subterminal band.

♀. Fore and hind wings with the terminal area much whiter.

Hab. Orange R. Colony, Bloemfontein (*Eckersley*), 1 ♂; Sind, Karáchi (*Swinhoe*), 1 ♂, Bhug (*Nurse*), 1 ♀ type. *Exp.* 18 millim.

5666. Ozarba venata.

Ozarba venata, Butl. Ill. Het. B. M. vii. p. 69, pl. 130. f. 12 (1889); Hmpsn. Moths Ind. ii. p. 330.

Head, thorax, and abdomen brown mixed with grey, the last with slight white segmental lines; fore tibiæ and the tarsi blackish ringed with white. Fore wing brownish grey irrorated with brown, the terminal area suffused with brown, the veins of terminal half streaked with white; subbasal line represented by double blackish striæ from costa filled in with white; antemedial line indistinct, double, with double black striæ from costa filled in with white; a black point in middle of cell; a diffused oblique slightly sinuous medial line with rather triangular black patch from it to reniform and quadrate patch in submedian interspace to postmedial line; reniform with white annulus defined on outer side by black points, oblique bar-shaped; postmedial line double, black filled in with white, oblique from costa to vein 6, then slightly defined on outer side by white, slightly incurved at discal fold, incurved below vein 4, some white points beyond it on costa; subterminal line white, excurved at middle, then incurved and ending at tornus; a terminal series of small black lunules defined on inner side by a waved white line; cilia with a fine white line at base. Hind wing pale bronze-brown, the cilia whiter; the underside whitish irrorated with brown, a small black discoidal spot, curved postmedial line, and diffused subterminal shade with slight white spots beyond it on apical half.

Hab. Abyssinia, Atbara R. (*Gerrard*), 1 ♀; Kashmir, Rajaori (*Leech*), 1 ♂; Punjab, 1 ♀, Simla (*Harford*), 1 ♀, Kulu (*Pilcher*), 1 ♀, Dharmsála (*Hocking*), 2 ♂, 2 ♀ type, Kangra Valley (*Dudgeon*), 1 ♂, Allahabad, 1 ♂, 1 ♀, Cawnpore (*Betton*), 1 ♀.
Exp. 20–22 millim.

5667. Ozarba rubrivena, n. sp. (Plate CLXII. fig. 10.)

♂. Head, thorax, and abdomen reddish brown tinged with grey; palpi whitish at base and with reddish ring at extremity of 2nd joint; pectus, legs, and ventral surface of abdomen white mixed with brown, the fore tibiæ and the tarsi blackish ringed with white. Fore wing grey and brown mixed, the veins of terminal half finely streaked with reddish; subbasal line represented by a minute oblique black bar from costa; antemedial line double, the inner line black towards costa, sinuous; a black point in middle of cell; medial line blackish with quadrate black patches from it to reniform and in submedian interspace to postmedial line; reniform with white annulus, narrow, constricted at middle, defined on outer side and below by black points; postmedial line double, black filled in with white, obliquely downcurved from costa to vein 7, then slightly defined by whitish on outer side, incurved below vein 4, some white points beyond it on costa and a blackish patch between veins 7 and 3; subterminal line whitish, strongly

excurved at middle, then incurved and ending at tornus, blackish patches beyond it above middle and tornus; a terminal series of minute black lunules slightly defined on inner side by whitish. Hind wing bronze-brown, the cilia with a fine white line at base; the underside brownish white thickly irrorated with fuscous, a small discoidal spot and diffused curved postmedial line.

Hab. S. Nigeria, Lagos, Ebute Meta (*Boag*), 1 ♂ type. *Exp.* 22 millim.

5668. Ozarba phlebitis, n. sp. (Plate CLXII. fig. 11.)

Head and thorax grey suffused with rufous; abdomen grey suffused with brown; pectus, legs, and ventral surface of abdomen brownish white, the fore tibiæ and the tarsi blackish ringed with white. Fore wing grey tinged with red-brown and slightly irrorated with blackish, veins 4. 3 on postmedial area with slight whitish streaks; subbasal line double filled in with whitish, sinuous, from costa to vein 1; antemedial line double filled in with whitish, minutely waved, angled inwards on vein 1; a black point in middle of cell; the reniform with slight whitish annulus defined on inner side by a curved black striga and on outer by black points; an oblique slightly sinuous brown medial line; postmedial line double filled in with whitish, oblique from costa to vein 6, then defined on outer side by whitish, slightly incurved at discal fold, oblique from vein 4 to submedian fold and angled outwards above inner margin; some short blackish streaks beyond it except towards costa, and some whitish points on costa; subterminal line whitish, excurved at middle, angled inwards at submedian fold and bent outwards to tornus; a terminal series of slight black lunules. Hind wing whitish suffused with brown; the underside white irrorated with brown.

Hab. Punjab, Jubbulpur, 2 ♂, Cawnpore (*Betton*), 1 ♂, 1 ♀ type; Sind, Karáchi (*Swinhoe*), 1 ♀; Bombay, 1 ♂. *Exp.* 18–20 millim.

5669. Ozarba metallica. (Plate CLXII. fig. 12.)

Metachrostis metallica, Hmpsn. Moths Ind. iv. p. 515 (1896).

Head and thorax rufous; abdomen fuscous with fine whitish segmental lines, the basal crest rufous; pectus, legs, and ventral surface of abdomen white irrorated with fuscous, the tibiæ and tarsi blackish ringed with white. Fore wing with the basal area and costa rufous, the rest of wing dark chocolate-brown and blackish, largely suffused with silvery grey; some fuscous at base of inner margin; subbasal line represented by two dark points on costa; antemedial line slight, double defined on outer side by silvery grey, slightly angled outwards below costa, then obliquely incurved; orbicular a minute rufous spot defined on outer side by black; reniform with ochreous annulus slightly defined by black,

narrow, produced at lower extremity; postmedial line blackish, double filled in with ochreous, defined on inner side by silvery grey, oblique from costa to vein 6, angled inwards at discal fold and incurved below vein 4, some rufous points with minute black streaks between them beyond it on costa; subterminal line silvery grey, excurved below vein 7 and at middle; a terminal series of black points defined on inner side by a waved ochreous line; cilia blackish, rufous below apex, at middle and tornus. Hind wing black-brown with ochreous medial line from discal fold to inner margin; cilia with fine whitish line at base and whitish tips except at middle; the underside black, irrorated with ochreous white, especially on basal area, the white medial line prominent and extending to costa, some white subterminal points at middle and a lunule above tornus.

Hab. Madras, Horsleykonda (*Campbell*), 1 ♂; Ceylon, Puttalam (*Pole*) 1 ♀ type, Hambantota (*Pole*), 1 ♀. *Exp.* 20–22 millim.

5670. Ozarba molybdota, n. sp. (Plate CLXII. fig. 13.)

♂. Head and thorax brown mixed with grey; abdomen grey suffused with fuscous, leaving slight pale segmental lines; pectus, legs, and ventral surface of abdomen whitish irrorated with fuscous, the fore tibiæ and the tarsi black ringed with white. Fore wing with the basal half brownish grey irrorated with brown, the terminal half fuscous brown with a leaden gloss, the costa dark towards base; subbasal line represented by two black striæ from costa filled in with whitish and a black point in cell; antemedial line double with two black points at costa, slightly sinuous, angled inwards at vein 1, some black suffusion beyond it in and below the cell, extending to the slight pale discoidal striga and below the cell to the postmedial line, which is double filled in with whitish and at costa with rufous, oblique from costa to vein 6, angled inwards in discal fold where there is a wedge-shaped black mark beyond it, incurved below vein 4, some rufous points beyond it on costa; subterminal line represented by a series of white points with minute black streaks before them from costa to vein 3, then almost obsolete; a terminal series of black points; cilia with a fine pale line near tips. Hind wing fuscous brown, the cilia pale at tips; the underside grey thickly irrorated with fuscous brown, a small discoidal spot and traces of a curved postmedial line.

Hab. Ceylon, Galle (*Bainbrigge-Fletcher*), 1 ♂ type. *Exp.* 20 millim.

5671. Ozarba vicina. (Plate CLXII. fig. 14.)

Eustrotia vicina, Schaus, Trans. Am. Ent. Soc. xxx. p. 155 (1904).

♀. Head and thorax pinkish rufous, the prothorax rather darker brown; palpi with some grey; pectus and legs whitish tinged with brown, the tarsi fuscous ringed with white; abdomen

fuscous with slight whitish segmental lines, the ventral surface whitish tinged with brown. Fore wing purplish pink, the terminal half rather darker; an indistinct waved subbasal line from costa to submedian fold; antemedial line double, incurved in cell and excurved below it; orbicular a black point; reniform white defined by black, obscurely except on inner side and with some blackish in centre, small, elliptical; an indistinct waved dark medial line with some brown suffusion beyond it; postmedial line double filled in with whitish, excurved from below costa to vein 4, then incurved and very slightly excurved at vein 1, the costa beyond it blackish with some white points on it; subterminal line formed of minute dentate white marks slightly defined on inner side by fuscous, obsolescent towards inner margin, a slight oblique black striga beyond it from below apex; a terminal series of black points with minute white points before them; a fine pale line at base of cilia. Hind wing brown, whitish towards base; a fine dark terminal line and white line at base of cilia; the underside purplish pink, the inner area whitish, a series of minute white streaks in the interspaces of terminal area.

Hab. Brazil, Castro Paraña (*D. Jones*), 1 ♀. *Exp.* 20 millim.

5672. **Ozarba hemipolia**, n. sp. (Plate CLXII. fig. 15.)

♂. Head and thorax grey-brown; abdomen yellowish thickly irrorated with brown; pectus, legs, and ventral surface of abdomen whitish irrorated with brown, the fore tibiæ and the tarsi black ringed with white. Fore wing with the basal half purplish grey irrorated with fuscous, the terminal half fuscous brown slightly tinged with grey; subbasal line indistinct, double, waved, from costa to submedian fold; antemedial line indistinct, double, waved; medial line black, sinuous, bounding the grey area; two slight black discoidal points; postmedial line indistinct, double, excurved below costa and at middle and angled inwards at discal and submedian folds, some rufous points beyond it on costa; subterminal line whitish, excurved below vein 7 and at middle and bent outwards to tornus; a terminal series of blackish points. Hind wing cupreous red-brown, the cilia paler at tips; the underside yellowish thickly irrorated with brown, the terminal area suffused with brown, a slight dark discoidal point and curved postmedial line.

Hab. Cape Colony, Transkei (*Miss F. Barrett*), 1 ♂ type. *Exp.* 24 millim.

5673. **Ozarba subdentula**, n. sp. (Plate CLXII. fig. 16.)

♂. Head and thorax grey tinged with brown; abdomen grey suffused with fuscous, leaving whitish segmental lines; pectus, legs, and ventral surface of abdomen whitish irrorated with fuscous, the fore and mid tibiæ and the tarsi black ringed with white. Fore wing with the basal half grey, the terminal half rufous suffused with red-brown, especially on outer half of medial area;

subbasal line represented by two black points on costa; antemedial line slight, double, minutely waved, with two black points on costa; a minute black point in middle of cell; reniform small, grey defined by blackish, elliptical, its inner edge slightly angled inwards; postmedial line double filled in with greyish, oblique from costa to vein 6, angled inwards at discal fold, incurved and minutely waved below vein 4, a slight blackish streak before it in submedian fold and some pale points with black streaks between them beyond it on costa; subterminal line grey, minutely waved, excurved at middle and bent outwards to tornus; a terminal series of minute black lunules defined on inner side by grey; cilia grey, dark brown at tips. Hind wing fuscous brown, the cilia whitish with some brown at base; the underside grey irrorated with fuscous, the apical area suffused with fuscous, a slight discoidal spot and sinuous postmedial line.

Hab. Ceylon, Wellawaya (*Green*), 1 ♂ type. *Exp.* 22 millim.

5674. Ozarba terminipuncta.

Metachrostis terminipuncta, Hmpsn. Bull. Liverp. Mus. ii. p. 36 (1899); id. Nat. Hist. Socotra, p. 324, pl. xx. fig. 2.

♂. Head and thorax rufous, the vertex of head with some white scales; pectus, legs, and abdomen paler irrorated with fuscous, the tarsi black ringed with white, the anal tuft tinged with rufous. Fore wing with the basal half pale rufous, the terminal half mostly suffused with deep purple-red; subbasal line indistinct, double, with two black points at costa, from costa to vein 1; antemedial line double, rufous with two black points at costa, waved, and somewhat oblique; medial line oblique, waved, with small black spot at costa; reniform obliquely defined by black on inner side, faintly defined on outer; postmedial line double filled in with whitish, oblique from costa to vein 6, then minutely dentate, incurved below vein 4, a blackish patch before it in submedian fold, a slight dentate dark shade beyond it except towards costa; subterminal line whitish defined on inner side by brown and with some whitish suffusion before it on inner area; the terminal area whitish and red with a black spot at discal fold; a terminal series of black points; cilia whitish at base and tips, fuscous at middle. Hind wing fuscous brown with a reddish tinge; the cilia whitish at base and tips; the underside ochreous white irrorated with fuscous, a discoidal spot, curved postmedial line, diffused subterminal line, and fine terminal line.

Hab. Socotra, Adho Dimellus (*O. Grant*), 1 ♂ type. *Exp.* 28 millim.

5675. Ozarba badia. (Plate CLXII. fig. 17.)

Acontia badia, Swinh. P. Z. S. 1886, p. 445; Hmpsn. Moths Ind. ii. p. 339.

♀. Head, thorax, and abdomen red-brown, the last with some

whitish mixed; pectus, legs, and ventral surface of abdomen whitish irrorated with brown, the fore tibiæ and tarsi blackish ringed with white. Fore wing pale purplish red-brown, the outer half of medial area deep red-brown except towards costa; antemedial line slight, brown, sinuous; medial line oblique from submedian fold to inner margin; an oblique black discoidal bar defined on outer side by whitish; postmedial line double filled in with whitish, oblique from costa to vein 6, slightly incurved at discal fold where there are black points before and beyond it, incurved below vein 4, an oblique red-brown shade beyond it from apex; subterminal line whitish, slightly excurved at middle, then incurved and ending at tornus; a terminal series of minute black lunules. Hind wing whitish almost wholly suffused and irrorated with fuscous brown; the underside ochreous white irrorated with brown, a faint dark discoidal lunule.

Hab. Bombay, Mhow (*Swinhoe*), 1 ♀ type. *Exp.* 20 millim.

5676. **Ozarba rufula**, n. sp. (Plate CLXII. fig. 18.)

♂. Head and thorax pale rufous; abdomen whitish tinged with rufous; pectus and ventral surface of abdomen whiter, the fore tarsi blackish ringed with white. Fore wing pale rufous, the outer half of medial area and the postmedial costal area suffused with red-brown; subbasal line indistinct, double, waved, from costa to submedian fold; antemedial line double, minutely waved, with two black points at costa; a black discoidal point; postmedial line indistinctly double filled in with whitish, excurved below costa and at middle, slightly angled inwards at discal fold and incurved below vein 4, some whitish points beyond it on costa; subterminal line indistinct, whitish, slightly excurved at middle; a terminal series of very slight dark points with more prominent point at submedian fold. Hind wing pale reddish brown, the cilia whitish; the underside ochreous white irrorated with brown, a brown discoidal point and traces of curved postmedial and subterminal lines.

Ab. 1. Fore wing with the basal area more rufous.

Hab. Sudan, Blue Nile (*S. Flower*), 1 ♀; Abyssinia, Atbara R. (*Gerrard*), 1 ♂; Punjab, Manpuri, 2 ♂, 1 ♀; Bombay, Kutch, 4 ♂, 2 ♀ type, Bombay, 1 ♀. *Exp.* 22–24 millim.

5677. **Ozarba umbrifera**, n. sp. (Plate CLXII. fig. 19.)

♂. Head, thorax, and abdomen grey-brown mixed with dark brown; pectus, legs, and ventral surface of abdomen whitish irrorated with fuscous, the fore tibiæ and the tarsi black ringed with white. Fore wing grey-brown irrorated with dark brown, the outer half of medial area and the postmedial costal area suffused with black-brown; subbasal line pale, curved, from costa to submedian fold, a dark patch beyond it on costa; antemedial line

double, sinuous; medial line incurved; a black point in middle of cell, the reniform small, greyish defined by blackish; postmedial line double, filled in with greyish towards costa, oblique to vein 6, incurved at discal fold and below vein 4, some pale points beyond it on costa; subterminal line greyish slightly defined on each side by brown and somewhat excurved below vein 7 and at middle; a terminal series of minute dark points with more prominent point at submedian fold. Hind wing grey-brown, the cilia paler; the underside whitish thickly irrorated with brown.

Hab. Bombay, Deesa (*Nurse*), 1 ♂ type. *Exp.* 20 millim.

5678. Ozarba hemiphæa. (Plate CLXII. fig. 20.)

Metachrostis hemiphæa, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 478 (1906).

Head and thorax rufous; abdomen greyish suffused with fuscous brown; pectus, legs, and ventral surface of abdomen white, the legs irrorated with fuscous, the fore tibiæ and the tarsi black ringed with white. Fore wing with the basal half grey tinged with rufous and irrorated with brown, the terminal half suffused with rufous or grey-brown, a medial shade diffused on outer side and the terminal area suffused with fuscous; subbasal line represented by two blackish points on costa; antemedial line very indistinct, double, with two blackish points on costa, slightly sinuous; a minute black point in middle of cell; medial line sinuous with the blackish medial shade on its outer edge; reniform with very faint pale annulus defined on inner side by a curved black bar and on outer by minute black points; postmedial line brown, oblique towards costa, then slightly defined on outer side by whitish, slightly angled inwards at discal fold and nearly straight below vein 4; subterminal line whitish, slightly excurved below vein 7, angled outwards at middle, then incurved; a terminal series of minute black points. Hind wing whitish suffused with brown; the underside whitish irrorated with brown, the costal area tinged with rufous, a small discoidal spot, curved postmedial line, and fine waved black terminal line.

Hab. Madras, Gooty (*Campbell*), 1 ♂, Nilgiris (*Hampson*), 2 ♀; Ceylon, Hambantota (*Pole*), 1 ♂ type, Colombo (*Mackwood*), 2 ♀. *Exp.* 22–24 millim.

5679. Ozarba itvarra.

Ozarba itvarra, Swinh. P. Z. S. 1885, p. 452, pl. 27. f. 14; Hmpsn. Moths Ind. ii. p. 330.

Head, thorax, and abdomen brownish grey mixed with fuscous; fore tibiæ and the tarsi black ringed with white. Fore wing greyish tinged with red-brown and with slight dark irroration; traces of a double subbasal line from costa to submedian fold with minute oblique black bar on its outer side at costa; antemedial line indistinct, double, sinuous with two black points at costa; medial

line incurved below the cell, with diffused dark shade beyond it; reniform with slight whitish annulus, defined on inner side by a curved black bar and on outer by some black points, constricted at middle: postmedial line double filled in with whitish, obliquely downcurved from costa to vein 6, incurved at discal fold, oblique from vein 4 to submedian fold where it is angled inwards, then slightly angled outwards at vein 1; some pale points with minute blackish streaks between them beyond it on costa; subterminal line whitish with a blackish shade before it on costal area and slight black streaks on veins 7, 6, excurved at middle, then incurved and ending at tornus, some blackish beyond it at discal and submedian folds; a terminal series of minute black lunules. Hind wing greyish suffused with fuscous brown, the cilia paler: the underside whitish irrorated with fuscous brown, the costa tinged with rufous, a faint discoidal spot.

Hab. Punjab, Allahabad, 1 ♂; Bombay, Kutch, 1 ♂, 2 ♀, Poona (*Swinhoe*), 1 ♀ type. *Exp.* 20–22 millim.

5680. **Ozarba pallida**, n. sp. (Plate CLXII. fig. 21.)

♂. Head, thorax, and abdomen whitish tinged with red-brown; pectus, legs, and ventral surface of abdomen white, the fore tarsi blackish ringed with white. Fore wing ochreous tinged with red-brown; subbasal line double, brown, from costa to vein 1; antemedial line double, brown, minutely waved; a black striga in middle of cell and oblique black discoidal bar; a diffused brown medial shade: postmedial line double, brown filled in with whitish, oblique from costa to vein 6, slightly incurved at discal fold, incurved below vein 4 and angled outwards at vein 1, some white points beyond it on costa; subterminal line indistinct, white, excurved at middle; a terminal series of slight black lunules. Hind wing whitish tinged with brown, the cilia white at tips; the underside white irrorated with red-brown, traces of a curved postmedial line.

Hab. Bombay, Kutch, 2 ♂ type. *Exp.* 18–22 millim.

5681. **Ozarba brunnea.** (Plate CLXII. fig. 22.)

Metachrostis brunnea, Leech, Trans. Ent. Soc. 1900, p. 157.

Head and thorax pale rufous; abdomen grey tinged with brown; pectus, legs, and ventral surface of abdomen white tinged with brown, the fore tibiæ and tarsi blackish ringed with white. Fore wing pale pinkish rufous slightly irrorated with brown; a triangular dark patch on costa before the antemedial line, which is double, inwardly oblique, minutely waved, excurved below the cell; outer half of medial area suffused with red-brown with the dark waved medial line on it; the reniform pale rufous defined on inner side by an obliquely curved black line and with brownish patch in

centre; postmedial line double, oblique from costa to vein 6, incurved at discal fold and oblique below vein 4, three slight black streaks beyond it on veins 6, 5, 4, and a brownish patch on costal area, with some pale points on costa: subterminal line slight, brown, excurved at middle; a punctiform black terminal line. Hind wing pale grey-brown, the cilia brownish white; the underside grey thickly irrorated with fuscous brown, a slight curved postmedial line.

Hab. C. China, Ichang (*Mrs. Pratt*), 1 ♂, 1 ♀, Ningpo, 1 ♀; W. China, Chang-Yang (*Pratt*), 1 ♂ type; Punjab, Simla (*Harford*), 1 ♂, 1 ♀, Dalhousie (*Harford*), 1 ♀. *Exp.* 16–20 millim.

5682. Ozarba incondita.

Ozarba incondita, Butl. Ill. Het. B. M. vii. p. 69, pl. 130. f. 13 (1889); Hmpsn. Moths Ind. ii. p. 328.

Head and thorax whitish tinged with rufous, the prothorax with a fuscous band; abdomen grey suffused with fuscous brown, the dorsal crest black tipped with white; pectus, legs, and ventral surface of abdomen whitish tinged with brown, the fore tibiæ and tarsi blackish ringed with white. Fore wing pale rufous, the antemedial costal area, the medial area except towards costa and the postmedial costal area narrowing to apex, fuscous brown; some fuscous brown at base of costa and inner margin; a slight subbasal dark striga from costa; antemedial line rather diffused, brown, inwardly oblique and slightly sinuous; a sinuous brown medial line; reniform pale defined on inner side by black and whitish striæ; postmedial line double filled in with whitish, oblique from costa to vein 6, incurved at discal fold where there is a black patch beyond it, incurved below vein 4, some white points with short black streaks between them beyond it on costa; subterminal line indistinct, whitish, slightly defined on inner side by brown, excurved at middle and angled inwards at discal fold and vein 2; a terminal series of dark striæ with more prominent black point at submedian fold. Hind wing greyish brown, the cilia paler; the underside whitish thickly irrorated with fuscous brown.

Hab. C. China, Kiukiang (*Pryer*), 1 ♀; W. China, Chang-Yang (*Pratt*), 1 ♀; Punjab, Dharmsála (*Hocking*), 4 ♂, 6 ♀ type, Kangra Valley (*Dudgeon*), 1 ♂, Jubbulpur, 1 ♂, 2 ♀; Bhután (*Dudgeon*), 2 ♂; Madras, Belgaum (*Watson*), 1 ♂, 1 ♀, Wynád (*Cardew*), 1 ♂; Ceylon, Hambantota (*Pole*), 1 ♀, Alutnuwara (*Vaughan*), 1 ♀; Burma, Myingyan (*Wood*), 1 ♀; Singapore (*Meade-Waldo*), 1 ♀. *Exp.* 16–26 millim.

5683. Ozarba lamia. (Plate CLXII. fig. 23.)

Bryophila lamia, Swinh. A. M. N. H. (7) viii. p. 129 (1901).

♂. Head, thorax, and abdomen dark brown mixed with grey; pectus, legs, and ventral surface of abdomen paler; fore tibiæ and

the tarsi blackish ringed with white. Fore wing grey mixed with dark brown; subbasal line slight, minutely dentate, from costa to submedian fold; the antemedial area with a brown shade from costa to submedian fold; antemedial line brown, minutely dentate below costa and in cell and excurved below the cell; a medial brown shade diffused below the cell to postmedial line; a black discoidal bar defined on outer side by whitish; postmedial line black-brown defined on outer side by whitish, minutely dentate, bent outwards below costa, slightly incurved at discal fold, incurved below vein 4, a blackish patch beyond it at discal fold and some white points on costa with minute black streaks between them; subterminal line indistinct, whitish, angled outwards below vein 7 and excurved at middle, then incurved and ending at tornus, black streaks beyond it above and below vein 5; a terminal series of minute black lunules with white striæ beyond them at base of cilia. Hind wing dark brown, a fine pale line at base of cilia; the underside grey thickly irrorated with brown, a small discoidal spot and curved postmedial line.

Hab. Burma, Beeling, 1 ♂ type. *Exp.* 20 millim.

5684. Ozarba inobtrusa. (Plate CLXII. fig. 24.)

Metachrostis inobtrusa, Hmpsn. Ann. S. Afr. Mus. ii. p. 414 (1902).

Head and thorax red-brown tinged with grey; palpi, pectus, legs, and abdomen whitish irrorated with fuscous, the tarsi black ringed with white. Fore wing purple-brown, suffused with grey and irrorated with fuscous to the postmedial line; subbasal line indistinct, double, sinuous, from costa to submedian fold; antemedial line double, waved; a sinuous medial line with a slight dark shade beyond it; a slight curved dark discoidal lunule; postmedial line double, the inner line indistinct, excurved below costa and at middle and slightly incurved at discal and submedian folds; subterminal line indistinct, greyish, angled inwards at discal and submedian folds and excurved at middle; a terminal series of dark points; cilia dark at base and tips, rufous at middle. Hind wing fuscous brown, the cilia with a fine pale line at base; the underside whitish thickly irrorated with fuscous, a slight discoidal bar, indistinct curved postmedial line, and fine black terminal line.

Ab. 1. Fore wing greyer hardly tinged with purple.

Ab. 2. Fore wing much more ochreous brown.

Hab. Cape Colony, Transkei (*Miss F. Barrett*), 5 ♂, 6 ♀ type. *Exp.* 22–28 millim.

5685. Ozarba phæa. (Plate CLXII. fig. 25.)

Metachrostis phæa, Hmpsn. Ann. S. Afr. Mus. ii. p. 414 (1902).

♀. Head and thorax red-brown; abdomen grey irrorated with fuscous; pectus, legs, and ventral surface of abdomen whitish, the fore tibiæ and tarsi black ringed with white. Fore wing nearly

uniform red-brown; antemedial line very indistinct, excurved below costa, then inwardly oblique and sinuous; a faintly darker slightly curved medial shade; a slight whitish and black discoidal bar; postmedial line brown slightly defined on outer side by whitish, excurved from costa to vein 4 and very slightly angled inwards at discal fold, then incurved and again slightly excurved below submedian fold; a slight pale subterminal line excurved at middle, then incurved and bent outwards to tornus; a fine whitish line at base of cilia. Hind wing fuscous brown, the cilia paler the underside ochreous white thickly irrorated with fuscous, a slight discoidal lunule and indistinct curved postmedial and subterminal lines.

Hab. Transvaal, White R. (*Cooke*), 1 ♀; Cape Colony, Annshaw (*Miss F. Barrett*), 2 ♀ type. *Exp.* 20 millim.

*5686. Ozarba plagifera. (Plate CLXII. fig. 26.)

Metachrostis plagifera, Rebel, Denk. Math.-nat. Akad. Wissens. lxxi. p. 61 (1907).

♀. Head, tegulæ, shoulders, and metathorax yellowish mixed with red-brown, the rest of thorax glossy dark brown; palpi with some brown at sides; antennæ brown; fore tibiæ and the tarsi black ringed with white; abdomen dark brown with pale segmental lines, the ventral surface yellowish. Fore wing dark brown tinged with grey and mixed with some yellowish and rufous, a large oblique yellowish patch beyond the cell from costa to vein 2, its outer edge somewhat dentate; a subbasal yellowish point on costa; antemedial line indistinctly double filled in with yellowish, minutely waved, incurved below submedian fold; orbicular a brown point with yellow annulus; reniform a minute brown spot constricted at middle; an indistinct double dark oblique minutely waved medial line: postmedial line double filled in with yellowish, minutely dentate, oblique from costa to vein 5, then incurved, forming the outer edge of the yellowish patch, some yellowish points beyond it on costa followed by a dark patch and yellowish spot at apex; a terminal series of dark striæ defined on inner side by yellowish; cilia dark brown and yellowish. Hind wing dark brown with a greyish tinge; the underside whitish irrorated with brown, the terminal area suffused with brown, a dark discoidal spot and sinuous postmedial line.

Hab. Arabia, Hagien Mts., type † ♀ in Mus. Vienna. *Exp.* 20 millim.

5687. Ozarba metaleuca, n. sp. (Plate CLXII. fig. 27.)

♂. Head, thorax, and abdomen white faintly tinged with brown; antennæ brown. Fore wing white faintly tinged with brown, the costa suffused with brown; a blackish point in base of cell; a slight subbasal dark striga from costa defined by white on inner side;

antemedial line indistinct, curved; medial area suffused with brown from just beyond antemedial line; the reniform faintly defined, narrow and oblique, placed on a white patch defined by an obliquely curved blackish line on inner side, extending to the postmedial line and to the costa just beyond it; postmedial line indistinctly double filled in with white, bent outwards below costa, angled inwards in discal fold and incurved below vein 4; postmedial area with a brown patch extending from costa to discal fold, with some white points on costa; subterminal line white slightly defined on inner side by brown, minutely dentate; a black terminal line except towards tornus. Hind wing white, the terminal area faintly tinged with brown; a fine dark terminal line; the underside with the costa irrorated with red-brown.

Hab. Brazil, Amazons, Obydos (*Austen*), 1 ♂ type. *Exp.* 16 millim.

5688. Ozarba fannia.

Eustrotia fannia, Druce, Biol. Centr.-Am., Het. i. p. 313, pl. 29. f. 12 (1889).

Head and thorax reddish brown; lower part of frons whitish; abdomen brown with slight whitish segmental lines; pectus, legs, and ventral surface of abdomen whitish tinged with brown. Fore wing reddish brown; subbasal line double, waved, from costa to vein 1; antemedial line double, waved, excurved below the cell; orbicular a black point; reniform whitish defined by black, incompletely above and on outer side, rounded, its lower part with a slight projection, a whitish patch above and beyond it; postmedial line double, the outer line blackish towards costa, oblique from costa to vein 6, incurved at discal fold and with short black streaks beyond it above and below vein 5, incurved below vein 4, a darker patch beyond it on costa; subterminal line indistinct, pale, slightly defined on inner side by fuscous, excurved below vein 7 and at middle, then incurved and bent outwards to tornus, a black mark beyond it at apex; a terminal series of black points slightly defined on inner side by whitish. Hind wing dark brown with a cupreous tinge, the cilia whitish; the underside whitish slightly irrorated with brown, a discoidal point and traces of curved postmedial and subterminal lines.

Hab. Mexico, Tabasco, Teapa (*H. H. Smith*), 3 ♂, 1 ♀ type, Godman-Salvin Coll. *Exp.* 18–20 millim.

5689. Ozarba aeria. (Plate CLXII. fig. 28.)

Eustrotia aeria, Grote, Papilio, i. p. 11 (1881); Smith, Cat. Noct. N. Am. p. 312.

♂. Head, tegulæ, and prothorax black-brown mixed with whitish, the rest of thorax whitish with some black-brown on metathorax; palpi with white ring at extremity of 2nd joint; the fore tibiæ and

the tarsi black ringed with white; abdomen whitish tinged with brown and irrorated with black. Fore wing whitish slightly tinged and irrorated with brown; the costa black towards base with a whitish point on it representing the subbasal line; antemedial line with black point on costa, then indistinct, excurved below the cell and incurved at vein 1; medial line oblique and with black suffusion beyond it from costa to median nervure, then angled inwards in submedian fold and outwards at vein 1; reniform whitish defined on inner side by black and faintly on outer, elliptical, with two slight black streaks from lower extremity; postmedial line indistinct, double, oblique from costa to vein 6, angled inwards at discal fold and outwards at vein 4, then bent inwards to submedian fold and again slightly excurved; a large black patch on apical area, narrowing to a point at apex, extending to discal fold, with slight black streaks on it above and below vein 6 and some white points on costa; subterminal line white slightly defined on inner side by brown, excurved at middle, then waved; a terminal series of black points; cilia with a white line at base. Hind wing whitish tinged with brown; cilia with a fine white line at base; the underside white irrorated with brown, a small black discoidal spot, indistinct curved postmedial and subterminal lines, and terminal series of minute black lunules.

Hab. U.S.A., Wisconsin, Alabama, 1 ♂ type. *Exp.* 20 millim.

5690. Ozarba geta.

Eustrotia geta, Druce, Biol. Centr.-Am., Het. i. p. 313, pl. 29. f. 10 (1889).

Head and thorax brown mixed with grey, the mesothorax whiter; palpi with a white ring at extremity of 2nd joint and black band at base of 3rd; pectus and legs whitish tinged with brown; abdomen fuscous with slight white segmental lines, the ventral surface whitish except at extremity. Fore wing grey tinged with pink and irrorated with brown, the medial area brown except towards costa, the costal edge fuscous, interrupted at the lines; a subbasal black striga across the cell; antemedial line double filled in with whitish, slightly sinuous; reniform whitish defined by black, very narrow and oblique, strongly constricted at middle and with slight dark striæ in upper and lower parts; postmedial line double filled in with pinkish, oblique from below costa to vein 6, angled inwards in discal fold, oblique and minutely waved below vein 4; postmedial area with a dark brown patch from costa to vein 4 with some grey on it towards costa and a black streak in discal fold; subterminal line whitish slightly defined on each side by brown, minutely waved; a small black-brown spot at apex; a terminal series of black points. Hind wing white tinged with brown; cilia white; the underside white, the costal and terminal areas tinged with ochreous and irrorated with brown, a black discoidal point and indistinct curved postmedial line.

Hab. Mexico, Tabasco, Teapa (*H. H. Smith*), 2 ♂, 1 ♀ type, Godman-Salvin Coll.; Paraguay, Sapucay (*Foster*), 1 ♀. *Exp.* 16 millim.

5691. **Ozarba bicornis**, n. sp. (Plate CLXII. fig. 29.)

♀. Head and thorax pale rufous; pectus and legs greyish mixed with brown, the fore tibiæ and tarsi fuscous ringed with white; abdomen grey mixed with brown, the dorsal crest black at tip, the ventral surface tinged with rufous. Fore wing greyish tinged with pink and irrorated with brown, the outer part of medial area and postmedial area to vein 4 suffused with red-brown, the latter with oblique outer edge; antemedial line indistinctly double, filled in with whitish, sinuous, strongly excurved below the cell; an indistinct oblique sinuous medial line; reniform pinkish defined on inner side by white and black, very narrow, oblique and constricted at middle; postmedial line double filled in with pink, oblique from below costa to below vein 7, incurved at discal fold where there is a black mark on its outer edge, incurved below vein 5; some whitish points with slight black streaks between them beyond it on costa: subterminal line pale pinkish, nearly straight from costa to vein 4, then oblique and sinuous, a black spot beyond it at apex; a terminal series of black points. Hind wing brown, whitish at base and towards costa, a terminal series of dark striæ; cilia whitish tinged with brown; the underside white irrorated with fuscous, the costal and terminal areas tinged with rufous, a black discoidal point, indistinct sinuous postmedial line, and faint punctiform subterminal line.

Hab. Paraguay, Sapucay (*Foster*), 1 ♀ type. *Exp.* 26 millim.

5692. **Ozarba melanodonta**, n. sp. (Plate CLXII. fig. 30.)

♀. Head and thorax brown mixed with grey; tarsi fuscous ringed with white; abdomen brown with slight pale segmental lines. Fore wing grey suffused with brown and with slight dark irroration, the postmedial area except towards costa and the terminal area slightly paler; subbasal line indistinct, brown with white point at costa, waved, from costa to vein 1; antemedial line brown defined on inner side by whitish and with black point at costa, sinuous, excurved below the cell; orbicular a black point; an oblique waved brown medial line with brownish shade beyond it; reniform greyish defined by brown, very small, elliptical, with a white point below it; postmedial line double filled in with whitish, oblique towards costa, angled outwards at vein 7, then excurved and with black mark on its outer edge, oblique below vein 5, some whitish points with slight dark streaks between them beyond it on costa; subterminal line whitish with two minute black streaks before it below costa, slightly waved, a black spot beyond it at apex; a terminal series of black points. Hind wing

brown, the cilia whitish tinged with brown: the underside grey tinged with red-brown and thickly irrorated with dark brown, a slight discoidal bar, curved minutely waved postmedial line, and terminal series of small black lunules.

Hab. Trinidad (*Kaye*), 1 ♀ type. *Exp.* 22 millim.

5693. Ozarba besidia.

Eustrotia besidia, Druce, Biol. Centr.-Am., Het. ii. p. 495, pl. 95. f. 17 (1898).

♀. Head, thorax, and abdomen dark brown mixed with some grey; pectus, legs, and ventral surface of abdomen whitish tinged with brown. Fore wing dark brown with a purplish-grey gloss; subbasal line represented by a minute whitish striga from costa; antemedial line indistinct, dark, inwardly oblique and slightly incurved in cell, faintly defined on each side by whitish towards costa: an indistinct rather diffused dark sinuous medial line; reniform with whitish annulus slightly defined by black, small, elliptical, its lower extremity constricted to a minute nearly separate spot: postmedial line double filled in with white, oblique from costa to vein 6, incurved at discal fold where there is a black spot beyond it, angled outwards at vein 4, then incurved, some whitish points beyond it on costa; subterminal line whitish defined on inner side by brown, slightly angled outwards at vein 7, excurved and minutely waved at middle and bent outwards to tornus; a terminal series of small black lunules slightly defined on inner side by white; cilia with a fine white line near tips. Hind wing dark reddish brown, the cilia with a fine whitish line at base; the underside grey thickly irrorated with brown, a black discoidal lunule, minutely waved postmedial line, and fine waved black terminal line.

Hab. Mexico, Guerrero, Amula (*H. H. Smith*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 24 millim.

5694. Ozarba bettina.

Eustrotia bettina, Druce, Biol. Centr.-Am., Het. ii. p. 495, pl. 95. f. 16 (1898).

♀. Head, thorax, and abdomen dark brown mixed with some grey; pectus, legs, and ventral surface of abdomen white tinged with brown. Fore wing dark brown with a slight purplish-grey gloss; subbasal line represented by a dark point on costa with red points on each side of it; antemedial line indistinct, blackish, waved, excurved below the cell and with double red points at costa: a double waved medial line oblique from costa to median nervure: reniform slightly defined by black and with some white scales in lower part, narrow, oblique, its lower extremity narrowing

to a point; postmedial line double, oblique from costa to vein 6, incurved at discal fold, angled outwards at vein 4, then incurved, with slight black streaks beyond it at vein 6 and discal fold and some red points on costa; subterminal line indistinct, greyish, slightly excurved below vein 7 and at middle, a blackish spot beyond it at apex; a terminal series of slight black points. Hind wing dark red-brown, a fine pale line at base of cilia; the underside grey thickly irrorated with brown, a black discoidal spot, indistinct curved minutely waved postmedial line, and terminal series of minute black lunules.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 18 millim.

5695. **Ozarba holophæa**, n. sp. (Plate CLXII. fig. 31.)

♂. Head, thorax, and abdomen brown mixed with grey; pectus and legs white irrorated with black, the fore tibiæ and the tarsi black ringed with white; abdomen with the anal tuft rufous, the ventral surface white at base, purplish red towards extremity. Fore wing pale brown suffused with purplish grey and slightly irrorated with fuscous; traces of a double sinuous subbasal line from costa to submedian fold; antemedial line indistinct, double, sinuous, excurved in submedian fold; a fine waved black medial line; two white discoidal points slightly defined by black; postmedial line slight, double, oblique from costa to vein 6, slightly incurved at discal fold, incurved below vein 4, a darker patch beyond it on costal area; subterminal line fine, dark, excurved below vein 7 and at middle and incurved at discal and submedian folds, a slight oblique black striga beyond it from costa; a series of minute black points just before termen. Hind wing whitish irrorated with brown, the terminal area suffused with brown; cilia pale purplish pink mixed with some brown and with a fine yellowish white line at base; the underside white tinged with rufous and with slight dark irroration, a black discoidal spot, traces of a curved punctiform postmedial line, slight subterminal streaks below costa and at discal fold, and terminal points from apex to vein 2.

Hab. Argentina, Ledesma, 1 ♂ type. *Exp.* 18 millim.

5696. **Ozarba atrifera**, n. sp. (Plate CLXII. fig. 32.)

Head, thorax, and abdomen grey mixed with red-brown; palpi with some black at sides; fore tibiæ and the tarsi black ringed with whitish. Fore wing brownish grey irrorated with red-brown; subbasal line double, sinuous, from costa to vein 1, with black marks beyond it on costa and below the cell; antemedial line indistinct, double, waved; a black point in middle of cell; a waved medial line with a brown shade beyond it most prominent towards costa; reniform with brown centre and whitish annulus incompletely defined by black points and striæ; postmedial line double

filled in with grey, oblique from costa to vein 6, angled inwards at discal fold, incurved and minutely waved below vein 4, angled outwards at vein 1; the postmedial area with a blackish patch from costa to vein 5 interrupted by a pale streak below vein 6 and with some pale points on costa; subterminal line pale, defined on inner side by black points below the costal patch, slightly excurved below vein 7 and excurved at middle; a terminal series of black points. Hind wing grey suffused with fuscous brown, the cilia pale; the underside brownish grey irrorated with fuscous, a small discoidal spot, minutely waved curved postmedial line, traces of a subterminal line, and terminal series of minute black lunules.

Ab. 1. Fore wing with the medial area suffused with black except towards costa and beyond the reniform.

Ab. 2. Fore wing more uniform grey-brown tinged with fuscous.

Hab. Sokotra, Adho Dimellus (*O. Grant*), 1 ♂, Jena-agahan (*O. Grant*), 1 ♀; Br. E. Africa, Nairowa (*Betton*), 1 ♂ type; Cape Colony, Transkei (*Miss F. Barrett*), 1 ♀, Annshaw (*Miss F. Barrett*), 1 ♀, Grahamstown, 1 ♂. *Exp.* 22–26 millim.

5697. Ozarba perplexa.

Ozarba perplexa, Saalm. Lep. Madag. p. 281, f. 161 (1891).

Head, thorax, and abdomen fuscous brown tinged with grey, the last with the basal crest rufous; pectus, legs, and ventral surface of abdomen whitish irrorated with fuscous, the fore tibiæ and the tarsi black ringed with white. Fore wing grey-brown, the postmedial area except towards costa and the termen rufous; traces of a double blackish subbasal line from costa to submedian fold; antemedial line very indistinct, double, minutely waved, with black point on the outer line at costa; orbicular a white point slightly defined by black; medial line oblique and with black shade beyond it from costa to median nervure, then waved; a black-and-white discoidal lunule; postmedial line double, oblique from costa to vein 6, slightly incurved at discal fold where there is a small wedge-shaped black mark beyond it, incurved below vein 4 and slightly excurved above inner margin, some rufous points beyond it on costa; subterminal line faint, pale, with two short black streaks before it below costa, then defined on inner side by slight black points; a terminal series of black points defined on inner side by whitish. Hind wing deep fuscous brown, the cilia rufous except at base; the underside rufous irrorated with fuscous, a small black discoidal spot, minutely waved postmedial line, and subterminal series of dark marks on the veins with slight whitish streaks beyond them towards apex.

Hab. Sokotra, Adho Dimellus (*O. Grant*), 1 ♂; Natal, Malvern (*Marshall*), 1 ♀, Durban (*Gooch, Leigh, Quckett, Cooke*), 1 ♂, 8 ♀; Madagascar. *Exp.* 22–28 millim.

5698. Ozarba illosis. (Plate CLXIII. fig. 1.)

Metachrostis illosis, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 477 (1906).

♂. Head and thorax black-brown mixed with greyish and pinkish; palpi black at sides; fore tibiæ and tarsi black with pale rings; abdomen grey suffused with fuscous, the crest reddish at tip. Fore wing black-brown mixed with grey-white, the inner half of postmedial area and the terminal area mostly whitish; subbasal line pinkish, from costa to submedian fold, with two slight black streaks beyond its lower extremity; antemedial line double and filled in with pinkish towards costa, then single defined on outer side by whitish, oblique, bent inwards to inner margin, a slight pink spot before it below costa; reniform with grey-white annulus, small, oblique ciliptical, some black suffusion before it along median nervure with a slight medial black line from it to inner margin; postmedial line black, defined on each side by pink towards costa, then on outer side by whitish, oblique from costa to vein 6, incurved at discal fold, incurved and minutely waved below vein 4, some black beyond it at discal fold with its upper and lower extremities produced to streaks; some pink points on postmedial part of costa; subterminal line indistinct, pale, with two slight black streaks before it below costa, excurved below vein 7 and at middle: a terminal series of slight black points ending in a more prominent point at submedian fold. Hind wing fuscous brown with a greyish tinge; the underside ochreous white irrorated with fuscous, the apex suffused with fuscous, a black discoidal lunule, sinuous postmedial line, diffused subterminal line, and terminal series of striæ.

Hab. Ceylon, Maskeliya (*Alston*), 1 ♂ type. *Exp.* 28 millim.

5699. Ozarba tricuspis, n. sp. (Plate CLXIII. fig. 2.)

♂. Head and thorax deep red-brown; abdomen fuscous with whitish segmental lines; palpi, pectus, legs, and ventral surface of abdomen grey irrorated with fuscous, the fore tibiæ and the tarsi black ringed with white. Fore wing deep red-brown slightly irrorated with black; subbasal line represented by double black marks from costa and a blackish mark with pale striga on it below the cell; antemedial line double, inwardly oblique and waved from costa to median nervure, then the outer line strongly excurved in submedian interspace; a double oblique waved medial line with strong black shade beyond it from costa to below the cell; orbicular a black point with white annulus except on inner side; the reniform with slight white annulus faintly defined by black, its lower extremity produced outwards to a short lobe with slight black streak above it beyond lower angle of cell; postmedial line double, minutely waved, oblique from costa to vein 6, angled inwards at discal fold, incurved below vein 4, a black patch beyond it between veins 6 and 4, trifid at extremity and with grey patch above it

below the costa which is black with some rufous points; subterminal line indistinct, pale with some whitish points on it towards costa, defined on inner side by a short black streak below costa and by some fuscous points below the black patch, slightly excurved at middle and angled inwards at vein 2; an oblique black striga from apex and a terminal series of black and white points. Hind wing greyish suffused with fuscous brown, the terminal area rather darker; cilia rufous, blackish at base and tips; the underside whitish suffused with rufous and irrorated with black, a diffused black antemedial line, black discoidal spot, crenulate postmedial line, diffused subterminal line, and terminal lunulate line.

Hab. Br. E. Africa, Kikuyu (*Crawshay*), 1 ♂ type. *Exp.* 32 millim.

5700. Ozarba amazonia. (Plate CLXIII. fig. 3.)

Erastria amazonia, Warr. Trans. Ent. Soc. 1889, p. 229.
Photedes apicata, Schaus, Trans. Am. Ent. Soc. xxx. p. 156 (1904).

♀. Head and tegulæ red-brown; palpi with the extremities of 2nd and 3rd joints pale; frons pale with dark bar; thorax greenish white, the tarsi banded with brown; abdomen whitish suffused with brown except at base. Fore wing greenish white, irrorated with a few brown scales; the base of costa red-brown followed by a subbasal triangular brown patch; some brown at base of inner margin; antemedial line represented by an oblique series of slight brown points; orbicular and reniform absent; some brown points on medial part of costa; postmedial line double at costa, oblique to vein 4 and with oblique brown bar before it beyond the cell, then obsolete, a large triangular red-brown patch beyond it from costa to vein 4 with some whitish points on costa; subterminal line faintly defined by brown on inner side, excurved at middle; a terminal series of dark points; cilia red-brown. Hind wing pale brown with terminal series of dark striæ; the underside whitish suffused with bright rufous on costal and terminal areas and irrorated with a few dark scales, a dark discoidal spot and diffused curved postmedial line.

Hab. Brazil, Amazons, R. Jutahi (*Trail*), 1 ♀ type, Castro Paraña, type †♀ *apicata* in U.S. Nat. Mus. *Exp.* 22 millim.

5701. Ozarba melagona, n. sp. (Plate CLXIII. fig. 4.)

♂. Head black-brown tinged with rufous; thorax whitish suffused with rufous, the tegulæ black at base, the fore tibiæ and the tarsi black ringed with white; abdomen greyish tinged with rufous and irrorated with fuscous, the basal crest black. Fore wing whitish suffused with rufous, a blackish patch on postmedial area from costa to discal fold; subbasal line represented by a slight black striga from costa with some fuscous beyond it; antemedial line very indistinct, double, waved; a black point in middle of cell

and another at lower angle; medial line double, the outer line indistinct, waved; postmedial line black defined on inner side by white and oblique to vein 4, then indistinct, double, inwardly oblique and slightly angled inwards on vein 1 and outwards above inner margin, some white points beyond it on costa on the dark postmedial patch; subterminal line indistinct, whitish, defined on inner side by black points, excurved below vein 7 and at middle; a terminal series of black points; cilia mixed with black. Hind wing fuscous brown, the cilia pale with a dark line near base; the underside whitish irrorated with fuscous, the costal and terminal areas suffused with rufous, a black discoidal spot, curved minutely waved postmedial line, and terminal series of small wedge-shaped black marks.

Hab. Madagascar, Betsileo (*Cowan*), 3 ♂ type. *Exp.* 24 millim.

Genus AMYNA.

	Type.
Amyna, Guen. Noct. i. p. 406 (1852)	*punctum.*
Lochia, Wlk. xvi. 208 (1858)	*cana.*
Berresa, Wlk. xvi. 214 (1858)	*turpis.*
Lochia, Wlk. xxxiii. 748 (1865)	*apicalis.*
Stridova, Wlk. Proc. Nat. Hist. Soc. Glasg. i. p. 354 (1873)	*octo.*
Pteretholix, Grote, Trans. Am. Ent. Soc. iv. p. 298 (1873)	*bullula.*
Chytoryza, Grote, Can. Ent. viii. p. 190 (1876)	*octo.*
Hesperimorpha, Saalm. Ber. Senck. Ges. 1880, p. 283	*selenampha.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head, typically broadly scaled in front and produced to an angle at extremity, the 3rd joint rather long and fringed with scales in front; frons smooth; eyes large, rounded; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; build slender; tibiæ moderately fringed with hair; abdomen with dorsal crests on basal segments. Fore wing typically with the apex somewhat produced, the termen obliquely curved and slightly crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 obsolescent from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Fore wing of male with a large fovea in middle of cell with rounded depression at middle, the median nervure downcurved with an elongate groove below it.

A. (*Lochia*). Fore wing of male with the fovea covered on underside by a large scale-fan from subcostal nervure.

5702. Amyna apicalis.

Lochia apicalis, Wlk. xxxiii. 748 (1865).

♂. Head and tegulæ dark reddish brown slightly mixed with ochreous; thorax dark brown suffused with leaden fuscous; pectus and legs paler; abdomen brown, the ventral surface greyish. Fore wing red-brown suffused with leaden fuscous, the postmedial area

pale rufous on inner half; subbasal line represented by small black spots on costa and below cell; antemedial line blue-black, oblique from costa to median nervure beyond the fovea, then retracted, angled outwards in submedian fold and above inner margin and inwards on vein 1; claviform and orbicular absent; reniform with slight white annulus, narrow, constricted at middle and produced at lower extremity; a slightly sinuous and rather diffused medial black line, oblique from costa to the reniform and approximated below the cell to the postmedial line, which is blue-black with a faint line beyond it and filled in with greyish, bent outwards below costa, slightly incurved at discal fold and strongly below vein 4,

Fig. 129.—*Amyna apicalis*, ♂. 1.

some white points beyond it on costa; a rounded yellowish white patch on costa just before apex, enclosing a small dark spot on costa; subterminal line absent; a terminal series of black striæ and white points at base of cilia; some rufous on termen above tornus. Hind wing fuscous brown, the costal area yellowish white to beyond middle; a terminal series of black striæ and a small yellowish white mark on termen towards tornus; cilia with a fine pale line at base; the underside yellowish suffused and irrorated with red-brown, a slight discoidal bar and faint crenulate postmedial line with dark points at the veins.

Hab. Queensland. Moreton Bay (*Diggle*), 3 ♂ type. *Exp.* 30–32 millim.

B. Fore wing of male with the fovea overhung on underside by a much smaller scale-fan from subcostal nervure.

a. (*Pterætholix*). Fore wing with the apex produced, the termen excised below apex and excurved at middle.

5703. Amyna bullula.

Pterætholix bullula, Grote, Trans. Am. Ent. Soc. iv. p. 299 (1873); Smith, Cat. Noct. N. Am. p. 244.

Chytoryza tecta, Druce, Biol. Centr.-Am., Het. i. p. 338 (part.), nec Grote.

Head and thorax brown mixed with grey; palpi blackish at sides and white in front; tarsi ringed with white; abdomen grey-brown with the dorsal crests blackish. Fore wing cupreous red with slight dark irroration, the base, costal half, and terminal area

suffused with grey-brown; subbasal line represented by a slight whitish striga from costa; antemedial line indistinct, dark, slightly defined by grey on inner side, oblique, waved; claviform absent; orbicular with slight white annulus, round, in male obliterated by the fovea; reniform with white annulus slightly defined by brown, figure-of-eight shaped; an indistinct waved dark medial line; postmedial line dark defined by white on outer side towards costa, bent outwards below costa, then dentate, excurved to vein 4, then incurved, some whitish points beyond it on costa; subterminal line dark with rounded whitish spot beyond it below costa, angled outwards at vein 7 and dentate at veins 4, 3; a terminal series of

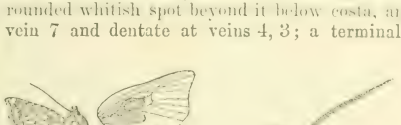

Fig. 130.—*Amyna bullula*, ♂. ½.

black points with white points on their inner edge; cilia dark brown at base, white at tips except towards tornus. Hind wing grey-brown with slight discoidal spot and sinuous postmedial line faintly defined by whitish on outer side; cilia white with deep brown line near base; the underside white thickly irrorated with red-brown, a small black discoidal spot, crenulate postmedial line with black points before it on the veins, slight diffused subterminal line, and terminal series of black points.

Ab. 1. Fore wing with the lower part of reniform filled in with white.—Mexico, Guatemala.

Hab. U.S.A., Alabama, 1 ♂, Texas, 1 ♀; Mexico, Jalapa (*Trujillo*), 1 ♀; Guatemala, San Geronimo (*Champion*), 1 ♀, Godman-Salvin Coll. *Exp.* ♂ 26, ♀ 28 millim.

b. (*Berresa*). Fore wing short and broad, the apex rounded, the termen evenly curved.

5704. Amyna natalis.

Berresa natalis, Wlk. xvi. 214 (1858); Moore, Lep. Ceyl. iii. p. 26, pl. 146. f. 3.
Miana palpalis, Wlk. xxxii. 678 (1865).
Mesotrosta abyssa, Snell. Tijd. v. Ent. xxiii. p. 56, pl. v. f. 1 (1880).
Berresa turpis, Hmpsn. Moths Ind. ii. p. 252 (1894), nec Wlk.
Berresa mecki, Beth.-Baker, Nov. Zool. xiii. p. 199 (1906).

Head and thorax grey-brown; tarsi slightly ringed with white; abdomen pale grey-brown, the dorsal crests slightly tipped with white. Fore wing grey-brown; subbasal line represented by two blackish striæ from costa and two points below cell; antemedial

line indistinctly double, blackish, obscurely waved; claviform and orbicular absent; reniform with annulus formed of white points defined by black points, constricted at middle; traces of a dark waved medial line, oblique from costa to median nervure; postmedial line indistinctly double at costa, bent outwards below costa, then dentate and broken up into a double series of black points, excurved to vein 4, then incurved, some whitish points beyond it on costa; subterminal line indistinct, whitish defined by fuscous on inner side, angled outwards at vein 7, excurved and minutely waved

Fig. 131.—*Amyna natalis*, ♂. ½.

at middle; a terminal series of black points: cilia with a slight dark line through them. Hind wing glossy grey-brown with traces of a dark postmedial line faintly defined by whitish on outer side; cilia greyish with a dark line near base; the underside white irrorated with brown, a black discoidal point, indistinct curved postmedial line with black points on the veins, and terminal series of small black lunules.

Hab. Kashmir, Rajaori (*Leech*), 2 ♂; Punjab, Dharmsála (*Hocking*), 1 ♂, Manpuri, 1 ♂; Bengal, Calcutta (*Russell*), 2 ♂, Pusa (*Mason*), 2 ♂, 2 ♀; Madras, Nilgiris (*Hampson*), 3 ♂, 1 ♀; Ceylon, 5 ♂, 1 ♀ type; Burma, Rangoon, 1 ♂; Br. N. Guinea, Aroa R. (*Meek*), type † *meeki* in Coll. Bethune-Baker; Celebes; Queensland, Mackay, 1 ♂, Brisbane (*Turner*), 1 ♂, 1 ♀, Moreton Bay (*Diggle*), 1 ♀ type *palpalis*; W. Australia (*Diggle*), 1 ♂; N. S. Wales (*Raynor*), 6 ♂, 8 ♀; Norfolk I. (*Mathew*), 1 ♂, 1 ♀; Fiji (*Mathew*), 2 ♂; Tonga (*Mathew*), 1 ♂; Samoa I., Pago (*de la Garde*), 1 ♀; Gilbert Is., Apia (*de la Garde*), 1 ♀. *Exp.* 22–26 millim.

Sect. II. (*Hattia*). Fore wing of male with small or moderate fovea in cell before the antemedial line, overhung on underside by a slight scale-fan from subcostal nervure, the median nervure slightly curved downwards.

A. Fore wing with more or less developed whitish mark on costal part of subterminal line.

a. Fore wing with the lower part of reniform filled in with white.

a^1. Fore wing with yellow mark at middle of reniform.

a^2. Fore wing with prominent series of white points just before termen.

a^3. Fore wing dark brown with a cupreous tinge..... *crocosticta*.

b^3. Fore wing grey-brown with a cupreous tinge..... *arva*.

b^2. Fore wing without prominent series of white points just before termen ..... *leucopera.*
b^1. Fore wing without yellow mark at middle of reniform. *stellata.*
b. Fore wing with the lower part of reniform broken up into white streaks ..... *[illegible]*
c. Fore wing with the lower part of reniform defined by white.
a^1. Fore wing cupreous red-brown with distinct white apical patch ..... *renalis.*
b^1. Fore wing dark brown with diffused grey apical patch. *glaucopera.*
c^1. Fore wing grey-brown with the subterminal line grey towards costa ..... *[illegible]*
B. Fore wing without whitish mark on apical part of subterminal line.
a. Fore wing with the reniform defined by white.
a^1. Fore wing cupreous brown; hind wing grey-brown ... *octo.*
b^2. Fore and hind wings whitish suffused with brown.
a^2. Fore wing not irrorated with black ..... *griseola.*
b^2. Fore wing irrorated with black ..... *[illegible]*
b. Fore wing with the reniform not defined by white.
a^1. Fore wing cupreous red-brown ..... *amplificans.*
b^1. Fore wing grey-brown ..... *[illegible]*

5705. Amyna crocosticta, n. sp. (Plate CLXIII. fig. 5.)

Amyna octo, Hmpsn. Monograph of Christmas Island, p. 65 (1900), part., nec Guen.

Head, thorax, and abdomen dark brown tinged with grey; antennæ ringed with white; pectus, legs, and ventral surface of abdomen greyer, the tarsi blackish tinged with white. Fore wing dark brown slightly tinged with grey; a white point at base; obliquely placed subbasal white points on costa and below cell; antemedial line with white striga from costa, then hardly traceable, waved, with white points on the veins and in submedian fold; claviform absent; orbicular represented by a white point; reniform defined by a few black scales, its lower part white, orange at middle and its upper part with slight white annulus, strongly constricted at middle; a medial white striga from costa and minute white point on vein 2 near base; postmedial line very indistinct, fine, blackish, bent outwards below costa, then dentate and produced to white points on the veins, excurved to vein 4, then incurved, some white points beyond it on costa; a bar-shaped white mark from costa just before apex; subterminal line absent; a series of black points on termen with white points before them. Hind wing dark glossy brown; the underside grey, thickly irrorated with brown, a black discoidal point, and waved postmedial line.

Hab. Christmas I. (*Andrewes*), 1 ♂, 1 ♀ type. *Exp.* 28 millim.

5706. Amyna aroa. (Plate CLXIII. fig. 6.)

Ilattia aroa, Beth.-Baker, Nov. Zool. xiii. p. 199 (1906).

Head and thorax red-brown tinged with greyish; tarsi fuscous ringed with white; abdomen grey-brown. Fore wing red-brown tinged with grey; subbasal line represented by a whitish striga

from costa; antemedial line with whitish striga from costa, then very indistinct, brownish, oblique to median nervure; claviform absent; orbicular represented by a white point; reniform represented by a semicircular white mark below, with yellow spot above, with two white points and a minute streak above it; medial line very indistinct, brown, oblique from costa to median nervure; postmedial line very indistinct, fine, brown, with white striga from costa, bent outwards below costa, then dentate and produced to slight whitish points on the veins, excurved to vein 4, then incurved, some white points on costa beyond it; a bar-shaped white spot from costa just before apex; traces of a greyish subterminal line slightly defined by brown on inner side and excurved at middle; a terminal series of minute black points; cilia with a slight pale line at base and whitish tips. Hind wing grey-brown, rather paler towards base; cilia with a yellowish line at base, brown medial line, and whitish tips: the underside grey tinged with red-brown and irrorated with fuscous, a small discoidal spot, waved postmedial line with dark points on the veins, and terminal series of black striæ.

Male with the fovea in cell of fore wing rather large.

Hab. Pulo Laut (*Doherty*), 2 ♂; Java, 1 ♀; New Guinea, Aroa R. (*Meek*), type† ♂ in Coll. Bethune-Baker, Fergusson I. (*Meek*), 1 ♀. *Exp.* ♂ 26, ♀ 30 millim.

5707. Amyna leucopera, n. sp. (Plate CLXIII. fig. 7.)

♂. Head, thorax, and abdomen reddish brown tinged with grey, pectus greyer. Fore wing grey-brown, the postmedial area with a rufous tinge on inner half; subbasal line represented by a grey striga from costa; antemedial line indistinct, brown slightly defined by grey on inner side, curved, strongly bent outwards above inner margin; claviform and orbicular absent; reniform yellow with slight white annulus, open above and constricted at middle; medial line represented by dark striæ from costa and inner margin; postmedial line indistinct, blackish slightly defined by grey on outer side, bent outwards below costa, then dentate and produced to grey points on the veins, incurved below vein 4, some white points beyond it on costa; a rounded white patch on costa just before apex enclosing a small blackish spot on costa; subterminal line greyish defined by fuscous on inner side, excurved at middle and angled inwards at discal and submedian folds; a terminal series of black points; a fine pale line at base of cilia. Hind wing grey-brown, a fine dark terminal line and pale line at base of cilia; the underside grey thickly irrorated with brown, a black discoidal point, punctiform postmedial line, and terminal series of points.

♀. Fore wing with the orbicular round with incomplete white annulus slightly defined by black.

Hab. Madras, Belgaum (*Watson*), 1 ♂, Nilgiris (*Hampson*), 2 ♂ type; Ceylon, Pundaloya (*Green*), 1 ♀. *Exp.* ♂ 22, ♀ 28 millim.

5708. Amyna stellata.

Amyna stellata, Butl. A. M. N. H. (5) i. p. 162 (1878); id. Ill. Het. B. M. ii. p. 26, pl. 29. f. 6.

Head and thorax red-brown; tarsi with pale rings; abdomen reddish brown with slight pale segmental rings, the ventral surface grey irrorated with brown. Fore wing red-brown; subbasal line represented by a whitish striga from costa; antemedial line with whitish striga from costa, then indistinct, dark, waved, angled inwards on vein 1; claviform and orbicular absent; reniform with round white spot at lower angle of cell and slight whitish annulus above; a faint dark medial line, oblique from costa to median nervure; postmedial line dark, defined on outer side by a few white scales, bent outwards below costa, then dentate and produced to black and white points on the veins, excurved to vein 4, then incurved and bent outwards above inner margin, some whitish points beyond it on costa; subterminal line indistinct, dark, with whitish bar from costa, angled outwards at vein 7 and excurved at middle: a terminal series of dark points with white points on their inner side. Hind wing grey-brown with slight sinuous dark postmedial line faintly defined by whitish on outer side; a slight dark terminal line; cilia grey with slight dark line near base; the underside white with small dark discoidal spot, crenulate postmedial line, and terminal series of black points.

Hab. Japan, Hakone (*Leech*), 1 ♂, Nagasaki (*Leech*), 1 ♀, Tokio (*Maries*), 1 ♂, 1 ♀, Yokohama (*Jonas, Lewis, Manley, Pryer*), 3 ♂, 3 ♀ type. *Exp.* 28–30 millim.

5709. Amyna ruptirena. (Plate CLXIII. fig. 8.)

Amyna ruptirena, Hmpsn. P. Z. S. 1910, p. 406.

♂. Head and thorax dark reddish brown mixed with some grey; pectus whitish; tibiæ and tarsi fuscous ringed with white; abdomen grey-brown, the ventral surface white at base. Fore wing red-brown suffused with dark greyish brown; subbasal line represented by a whitish striga from costa; antemedial line brown slightly defined on outer side by whitish, somewhat sinuous, oblique from costa to median nervure beyond the fovea, then inwardly oblique; reniform broken up into small white spots of which the two at lower angle of cell are elongate and with white striga above it from costa; postmedial line blackish, minutely dentate and produced to a series of white points, excurved from costa to vein 4, then oblique, some white points beyond it on costa; subterminal line indistinct, dark with white bar from costa, excurved below vein 7 and at middle; a terminal series of minute black and white points. Hind wing dark greyish brown; a fine dark terminal line and some whitish on termen at tornus; cilia with a fine pale line at base and whitish tips; the underside white irrorated with rufous, especially

on apical area, a blackish discoidal spot, postmedial line with minute dark streaks and white points at the veins, and terminal series of minute triangular black marks.

Hab. N.E. Rhodesia, Tanganyika plateau, Lofa Valley (*Neave*), 1 ♂ type. *Exp.* 26 millim.

5710. Amyna renalis. (Plate CLXIII. fig. 9.)

Ilattia renalis, Moore, Lep. Atk. p. 113 (1882); Hmpsn. Moths Ind. ii. p. 251.

Head and thorax red-brown mixed with grey, a whitish line above eyes, the tegulæ edged with whitish; antennæ and tarsi ringed with white; pectus greyer; abdomen brown edged with grey. Fore wing red-brown slightly irrorated with grey; a white point at base; subbasal line represented by a whitish striga from costa with a whitish point beyond it below median nervure; antemedial line whitish, minutely waved, interrupted, oblique from costa to median nervure and strongly bent outwards above inner margin; claviform absent; orbicular represented by one or two white points or slight minute annulus; reniform with white annulus defined by a few black scales, figure-of-8-shaped; traces of a sinuous brown medial line, oblique from costa to median nervure; postmedial line black defined by white on outer side, strongly bent outwards below costa, then dentate and produced to black and white points on the veins, excurved to vein 4, then incurved, some white points beyond it on costa; a rounded grey-white patch on costal area just before apex enclosing blackish points on and below costa; subterminal line hardly traceable, formed by a few grey scales slightly defined by brown on inner side; excurved at middle and incurved at discal and submedian folds; a terminal series of black points. Hind wing grey-brown with a slight reddish tinge; a punctiform blackish postmedial line slightly defined by grey on outer side; a fine dark terminal line; cilia grey tinged with rufous and with brown line near base; the underside white, thickly irrorated with red-brown except on inner area, a brown discoidal spot, postmedial line crenulate to vein 3, then sinuous, diffused subterminal line and terminal series of small black lunules.

Hab. Punjab, Kulu, Sultanpur (*G. Young*), 1 ♂, 1 ♀, Dharmsála (*Hocking*), 2 ♂, 2 ♀; Sikhim, 2 ♀ type. *Exp.* 26–34 millim.

5711. Amyna glaucopæra, n. n. (Plate CLXIII. fig. 10.)

Ilattia apicalis, Moore, Lep. Atk. p. 112 (1882), nec Wlk.; Hmpsn. Moth. Ind. ii. p. 251.

Head, thorax, and abdomen brown mixed with grey; tegulæ slightly edged with grey; antennæ ringed with grey. Fore wing brown slightly irrorated with grey; subbasal line represented by a slight dark striga from costa; antemedial line indistinct, dark

minutely waved, strongly bent outwards above inner margin; claviform absent; orbicular represented by a few white scales or traces of an annulus; reniform with slight interrupted white annulus defined by a few brown scales, strongly constricted at middle; a diffused dark medial line, oblique from costa to lower angle of cell, then incurved; postmedial line formed of black lunules slightly defined by white on outer side, bent outwards below costa, then dentate and produced to black and white points on the veins, excurved to vein 4, then incurved, some whitish points beyond it on costa; a slight oblique grey bar from costa just before apex; subterminal line faint, greyish, defined on inner side by fuscous suffusion, excurved below vein 7 and at middle; a terminal series of minute black lunules; cilia with a fine pale line at base. Hind wing grey-brown with a slight cupreous tinge; cilia greyish with a brown line through them; the underside whitish thickly irrorated with red-brown, a small discoidal lunule, crenulate postmedial line, and traces of diffused subterminal line.

Hab. Sikhim, 4 ♂, 1 ♀ type. *Exp.* 32 millim.

5712. **Amyna leucostriga**, n. sp. (Plate CLXIII. fig. 11.)

Head and thorax reddish brown mixed with grey, the dorsum of thorax with a metallic tinge; tarsi slightly ringed with white; abdomen pale grey-brown. Fore wing reddish brown tinged with grey; subbasal line represented by a slight pale striga from costa; antemedial line indistinct, dark, faintly defined by grey on inner side, slightly excurved from costa to vein 1, then bent outwards above inner margin; claviform and orbicular absent; reniform with incomplete white annulus slightly defined by brown, figure-of-8-shaped; an indistinct dark medial line, oblique from costa to median nervure; postmedial line dark, defined on outer side by some white scales, bent outwards below costa, then dentate and produced to blackish points on the veins, excurved to vein 4, then incurved, some white points beyond it on costa; subterminal line indistinct, dark, with whitish bar from costa, angled outwards at vein 7 and excurved at middle; a terminal series of black points with white points on their inner side. Hind wing grey-brown; traces of a curved postmedial line very faintly defined by whitish on outer side; cilia whitish with slight brown line near base; the underside white thickly irrorated with red-brown, a small discoidal spot, postmedial line crenulate from costa to vein 3, then sinuous, traces of a diffused subterminal line towards tornus and terminal series of small black lunules.

Hab. Punjab, Kulu, Sultanpur (*G. Young*), 1 ♂, 1 ♀, Simla (*Swinhoe, Harford*), 2 ♀, Dharmsála (*Hocking*), 2 ♂, 5 ♀ type. *Exp.* 26–30 millim.

5713. Amyna octo.

Perigea octo, Guen. Noct. i. p. 233 (1852); Hmpsn. Moths Ind. ii. p. 251 Staud. Cat. Lep. pal. p. 232.
Amyna axis, Guen. Noct. i. p. 407 (1852).
Poaphila stricta, Wlk. xiv. 1476 (1858).
Celæna flavigutta, Wlk. xv. 1688 (1858).
Celæna perfundens, Wlk. xv. 1691 (1858).
Lattia cephasalis, Wlk. xvi. 209 (1858); Moore, Lep. Ceyl. iii. p. 27, pl. 146. ff. 4, 4 *a*.
Amyna colon, Guen. Maillard's Réunion, p 37 (1862).
Perigea vexabilis, Wllgrn. Wien. Ent. Mon. vii. p. 148 (1863).
Miana inornata, Wlk. xxxii. 677 (1865).
Celæna obstructa, Wlk. xxxii. 679 (1865).
Perigea leucospila, Wlk. xxxii. 683 (1865).
Erastria stigmatula, Snell. Tijd. v. Ent. xv. p. 55, pl. 4. f. 16 (1872).
Stiriana albiguttata, Wlk. Proc. Nat. Hist. Soc. Glasg. i. p. 354 (1875).
Erastria lavia, Feld. Reis. Nov. pl. 108. f. 37 (1874).
Spectia orbica, Morr. Proc. Bost. Soc. N. H. xvii. p. 216 (1874); Druce, Biol. Centr.-Am., Het. ii. p. 506; Smith, Cat. Noct. N. Am. p. 244.
Amyna undulifera, Butl. A. M. N. H. (4) xvi. p. 403 (1875).
Chytoryza tecta, Grote, Can. Ent. viii. p. 190 (1876); Druce, Biol. Centr.-Am., Het. i. p. 338.
Pyrausta monotretalis, Mab. Ann. Soc. Ent. Fr. (5) ix. p. 339 (1879).
Peregea supplex, Swinh. P. Z. S. 1885, p. 452.
Berresa rufa, Beth.-Baker, Nov. Zool. xiii. p. 199 (1906).

Head and thorax grey-brown with a reddish tinge, the dorsum of thorax with a slight metallic gloss; tarsi slightly ringed with white: abdomen grey-brown. Fore wing grey-brown with a reddish tinge; subbasal line represented by a slight whitish striga from costa; antemedial line indistinct, defined by whitish on inner side, oblique from costa to median nervure, then waved, excurved above inner margin; claviform and orbicular absent; reniform with

Fig. 132.—*Amyna octo*, ♂. ½.

incomplete white annulus slightly defined by brown and strongly constricted at middle; an indistinct medial line oblique from costa to median nervure; postmedial line dark slightly defined by white scales on outer side, bent outwards below costa, then dentate, strongly incurved below vein 4, some whitish points beyond it on costa: subterminal line indistinct, whitish, slightly defined by brown on inner side, somewhat angled outwards at veins 7, 6, 4, 3, then incurved; a terminal series of slight dark points with minute white

points on their inner side; cilia greyish at tips, Hind wing grey-brown, the cilia whitish at tips; the underside white thickly irrorated with reddish brown, a small discoidal spot, indistinct crenulate postmedial line, and terminal series of small black lunules.

Ab. 1. *axis*. Fore wing with the lower part of reniform filled in with white.

Ab. 2. *orbica*. Fore wing with the terminal area more strongly suffused with rufous.

Ab. 3. *leucospila*. Fore wing bright rufous.

Hab. U.S.A., Kansas, Texas, 1 ♂, 1 ♀ type *tecta*; Mexico, Guerrero (*H. H. Smith*), 1 ♂, Atoyac (*H. H. Smith*), 1 ♂, Tabasco (*H. H. Smith*), 1 ♂, Coatepec (*Brooks*), 1 ♂; Guatemala, Irazu (*Rogers*), 1 ♂; Honduras (*Dyson*), 1 ♂ type *stricta*; Panama, Chiriqui (*Champion*), 1 ♀, Godman-Salvin Coll.; Jamaica (*Kaye*), 1 ♀; Grenada (*H. H. Smith*), 1 ♂, 1 ♀; Trinidad (*Kaye*), 1 ♂; Venezuela (*Dyson*), 1 ♀ type *flaviguttа*; Brazil, Amazons (*Pitfard*), 1 ♀, Santarem (*Bates*), 1 ♀; Paraguay, Sapucay (*Foster*), 1 ♀; Argentina, Gran Chaco, Florenzia (*Wagner*), 1 ♂; Gambia, Bathurst (*F. C. Smith*), 1 ♂, 1 ♀; Sierra Leone, Port Lokko (*Penny*), 1 ♂; Gold Coast, Kofondoa (*Dudgeon*), 1 ♀; S. Nigeria, Lagos, Ebute Meta (*Boag*), 1 ♂, Olokemeji (*Dudgeon*), 2 ♀; Old Calabar (*Crompton*), 1 ♀; Congo (*Marsden*), 1 ♀ type *albiguttа*; Soudan, White Nile, Gabt-el-Megahed (*Dunn*), 1 ♂, 1 ♀; Abyssinia, Atbara (*Gerrard*); Sokotra, Jena-agahan (*W. R. O.-Grant*), 1 ♀, Dahamish (*W. R. O.-Grant*), 1 ♀; Br. E. Africa, Mombasa (*de la Garde*), 1 ♀, Athi R. (*Crawshay, Betton*), 3 ♀, Sabaki Valley (*Gregory*), 1 ♀, Eb Urru (*Betton*), 2 ♂, Neugia (*Crawshay*), 1 ♀, Taveta (*Rogers*), 1 ♀; Uganda, Wadelai (*Emin Pasha*), 1 ♀, Ruwenzori (*Legge & Wollaston*), 1 ♀; Rhodesia, Salisbury (*Marshall*), 3 ♂, 1 ♀, Bulawayo (*Marshall*), 1 ♂; Transvaal, Pretoria (*Janse*), 1 ♀; Natal, Howick (*Cregoe*), 1 ♂, Durban (*Burrows, Leigh*), 4 ♂, 4 ♀ type *undulifera*; Madagascar, type † *monotretalis* in Coll. Mabille; Réunion; Rodriguez (*Manders*), 1 ♀; Aden (*Swinhoe, Fletcher*), 2 ♂, 1 ♀, Shaik Othman (*Verbury*), 1 ♀; E. Siberia, Amurland, 1 ♀, Ussuri; Corea Gensan (*Ito*), 1 ♂, 2 ♀; China, Len-kung-tan (*Fletcher*), 1 ♀, Shanghai (*Fortune, Pryer*), 2 ♂, 3 ♀, Fokien (*de la Garde*), 1 ♂, Ship-y-shan (*Pratt*), 1 ♀; Kashmir, Rajaori (*Leech*), 1 ♀; Punjab, Kulu, Sultanpur (*G. Young*), 1 ♂, Cambellpur (*Verbury*), 2 ♂, 2 ♀, Dharmsála (*Hocking*), 2 ♂, Allahabad, 1 ♂, Khairabad, 1 ♂, 1 ♀, Moghal Sarai (*Betton*), 1 ♂; Bengal, Calcutta, 1 ♂; Sind, Karáchi (*Swinhoe*), 1 ♂, 1 ♀, Kutch, 4 ♂, 2 ♀; Bombay (*Swinhoe*), 2 ♂, 2 ♀, Poona (*Swinhoe*), 1 ♀ type *supplex*, Mahableshwar (*Swinhoe*), 1 ♀; Madras, Cuddapah (*Campbell*), 1 ♂, Nilgiris (*Hampson*), 2 ♂, 1 ♀, Coimbatore (*Wallhouse*), 2 ♀ type *inornata*, Palnis (*Campbell*), 1 ♀; Ceylon (*Templeton*), 1 ♂, 1 ♀; Andamans, 1 ♂, 1 ♀; Singapore (*Ridley*), 1 ♂; Borneo; Christmas I. (*Andrews*), 1 ♂; Br. N. Guinea, Aroa R. (*Meek*), type ♀ *rufa* in Coll. Bethune-Baker; Queensland, Rockampton, 1 ♀, Brisbane

(*Turner*), 1 ♂ ; N. Australia, Alexandria (*Stalker*), 1 ♂ ; N. S. Wales, Sydney (*de la Garde*), 1 ♂ ; Solomon Is., Alu (*Woodford*), 2 ♀ ; New Hebrides (*Mathew*), 1 ♂, 1 ♀ ; Fiji (*Mathew*), 3 ♀ ; Gilbert Is. (*Woodford*), 7 ♂ ; Ellice Is. (*Woodford*), 1 ♂, 1 ♀ ; Cook's I., Tonga (*Mathew*), 1 ♀, Rarotonga (*J. J. Walker*, *de la Garde*), 4 ♂ ; Tahiti (*J. J. Walker*), 1 ♀ ; Marquesas Is. (*J. J. Walker*), 3 ♂, 2 ♀ ; Hawaii, 1 ♀ type *perfundens*. *Exp.* 24–30 millim.

*5714. Amyna griseola. (Plate CLXIII. fig. 12.)

Erastria griseola, Snell. Tijd. v. Ent. xv. p. 54, pl. iv. f. 15 (1872).

♀. Head, thorax, and abdomen grey-white tinged with pale cupreous brown ; pectus, legs, and ventral surface of abdomen white, the fore tibiæ and tarsi fuscous ringed with white ; abdomen with the crest on 2nd segment tipped with blackish. Fore wing grey-white suffused with pale cupreous brown ; antemedial line indistinct, brown, double, waved, the lines well separated ; reniform slightly defined by brown and with white points representing the annulus, constricted at middle ; an indistinct brown medial line, oblique from costa to lower angle of cell, then waved ; postmedial line indistinct, bent outwards below costa, then dentate, excurved to vein 4, then incurved, some white points beyond it on costa ; an indistinct brown subterminal line, excurved below vein 7 and at middle ; a terminal series of black and white points. Hind wing whitish tinged with pale cupreous brown, a terminal series of minute black points ; cilia white with a brownish line near base ; the underside white slightly irrorated with brown, a black discoidal point, postmedial series of points on the veins, and terminal series of points from apex to vein 2.

Hab. Lr. Guinea, Banana (*Waerden*), type † ♀ in Coll. Snellen. *Exp.* 26 millim.

5715. Amyna spilonota. (Plate CLXIII. fig. 13.)

Amyna spilonota, Lower, Tr. R. Soc. S. Austr. xxvii. p. 34 (1903).

♂. Head and thorax pale ochreous mixed with fuscous ; abdomen ochreous white. Fore wing ochreous white slightly tinged with rufous in discal and submedian folds and thickly irrorated with fuscous except on terminal area ; subbasal line diffused, black, oblique, from costa to submedian fold ; antemedial line black defined by whitish on inner side, interrupted, waved, oblique ; reniform incompletely defined by black, its upper part yellowish tinged with rufous, its lower part white, constricted at middle ; a diffused black curved and slightly waved medial line ; postmedial line indistinctly double, black filled in with white, bent

outwards below costa, angled inwards in discal fold, then dentate and produced to black and white points on the veins, strongly incurved below vein 4, some white points with black streaks between them beyond it on costa; subterminal line indistinct, whitish, strongly defined on inner side by diffused black, angled outwards at vein 7 and inwards in discal fold, excurved at middle, then incurved; a terminal series of black points with white points on their inner side; cilia ochreous white with diffused fuscous line at middle and dark tips. Hind wing ochreous white, the terminal area tinged with brown; a fine dark terminal line; cilia white with fuscous line at middle; the underside white and slightly irrorated with brown, a dark discoidal point, traces of a curved postmedial line, and terminal series of black points.

Fore wing of male with the fovea very small.

Hab. N. Australia, Port Darwin (*J. J. Walker*), 1 ♂. *Exp.* 24 millim.

5716. Amyna amplificans. (Plate CLXIII. fig. 14.)

Calæna amplificans, Wlk. xv. 1689 (1858).
Hadena impedita, Wlk. xv. 1726 (1858); Druce, Biol. Centr.-Am., Het. i. p. 294, & ii. p. 487.

Head and thorax red-brown slightly mixed with greyish; pectus, legs, and abdomen grey-brown. Fore wing red-brown; subbasal line represented by a slight dark striga from costa and spot below cell with a point beyond them in cell; antemedial line black, oblique, angled inwards on vein 1 and incurved to inner margin; orbicular represented by two slight dark points with a whitish point before the upper one, the reniform by a small white spot at lower angle of cell; a curved, minutely waved black medial line; postmedial line with small black spot on costa, strongly bent outwards below costa, then dentate and produced to black points on the veins, excurved to vein 4, then incurved, some slight pale points beyond it on costa; subterminal line indistinct, dark, minutely waved, excurved below vein 7 and at middle; a terminal series of small black spots defined on inner side by slight grey lunules. Hind wing grey-brown with a reddish tinge; cilia with a fine pale line at base; the underside grey tinged with rufous and irrorated with brown, a black discoidal spot, crenulate postmedial line, and somewhat lunulate black terminal line.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♂; Guatemala, Volcan de Atitlan (*Champion*), 1 ♂; Costa Rica, Irazu (*Rogers*), 1 ♀, Candelaria Mts. (*Underwood*), 1 ♂, 1 ♀, Godman-Salvin Coll.; Venezuela (*Dyson*), 3 ♂, 3 ♀, type and type *impedita*. *Exp.* 34–36 millim.

5717. Amyna tristis.

Chytoryza tristis, Druce, Biol. Centr.-Am., Het. ii. p. 506, pl. 96. f. 18 (1898).

Head, thorax, and abdomen grey-brown; tarsi with slight pale rings. Fore wing grey-brown; subbasal line represented by two faint dark striæ from costa; antemedial line indistinct, oblique, waved; claviform absent; orbicular represented by a few whitish and dark scales; reniform very indistinct, its annulus represented by some whitish scales with a black point at its upper extremity and some on its lower edge, constricted at middle; an indistinct rather diffused medial line oblique from costa to lower angle of cell, then incurved; postmedial line slightly defined by whitish on outer side towards costa, bent outwards below costa, then dentate, incurved below vein 4, some pale points beyond it on costa; subterminal line very indistinct, dark, slightly defined on outer side by whitish towards costa, excurved below vein 7, then minutely waved; a terminal series of black points; cilia with a slight pale line at base. Hind wing grey-brown, the cilia white with a slight brown line through them; the underside grey suffused with brown, a small black discoidal spot, minutely waved postmedial line, and terminal series of small black lunules.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♂, 2 ♀ type, Godman-Salvin Coll. *Exp.* 32–34 millim.

Sect. III. (*Amyna*). Fore wing of male without fovea in cell.

A. Fore wing with the apex produced, the termen obliquely curved; hind wing ample and the tornal area dilated.

5718. Amyna punctum.

Noctua punctum, Fabr. Ent. Syst. 3, 2. p. 34 (1794).
Noctua annulata, Fabr. Ent. Syst. 3, 2. p. 47 (1794).
Amyna selenampha, Guen. Noct. i. p. 406 (1852); Moore, Lep. Ceyl. iii. p. 30, pl. 147. ff. 3, 3*a*; Hmpsn. Moths Ind. ii. p. 250.
Alamis spoliata, Wlk. xiii. 1050 (1857).
Hima latipennis, Wllgrn. Wien. Ent. Mon. iv. p. 169 (1860).
Amyna subtracta, Wlk. Journ. Linn. Soc., Zool. vi. p. 189 (1863).
Perigea trivenefica, Wllgrn. Wien. Ent. Mon. vii. p. 148 (1863).
Perigea urba, Wllgrn. Wien. Ent. Mon. vii. p. 148 (1863).
Hadena latipennis, Wlk. xxxiii. 738 (1865).
Perigea natalensis, Wllgrn. Svensk. Vet.-Akad. Handl. v. 4, p. 55 (1865).
Hesperimorpha paradoxa, Saalm. Ber. Senck. Ges. 1880, p. 283, id. Lep. Madag. p. 283, f. 145.

♂. Head, thorax, and abdomen reddish or grey-brown tinged with grey; palpi whitish, the 2nd joint towards extremity and 3rd joint blackish; frons whitish below and with blackish bar above, pectus whitish mixed with fuscous, the fore legs blackish, the tarsi blackish ringed with white; abdomen with the anal tuft and ventral surface whitish. Fore wing reddish or grey-brown tinged with grey, the markings indistinct; subbasal line represented by a

slight dark striga from costa; antemedial line indistinct, dark, waved; claviform absent; orbicular with slight whitish annulus faintly defined by brown, round; reniform faintly defined by brown, its lower part filled in with white, constricted at middle: a faint diffused oblique medial line; postmedial line indistinct, dark, with white point at costa, strongly bent outwards below costa, then dentate, angled slightly inwards at discal fold and strongly incurved below vein 4, some whitish points beyond it on costa; subterminal line faintly defined by fuscous on inner side, angled

Fig. 133.—*Amyna punctum*, ♂. ½.

outwards at vein 7 and inwards at discal fold, excurved and somewhat waved at middle, then incurved; a terminal series of black points. Hind wing reddish brown, the cilia white with a fuscous line near base; the underside whitish suffused and irrorated with brown except on inner area, a small black discoidal spot, crenulate postmedial line, and terminal series of small black lunules.

♀. Fore wing irrorated with grey and black, the markings more distinct, the ante- and postmedial lines defined by grey, the subterminal line by black; hind wing with slight dark postmedial line faintly defined by whitish on outer side, the cilia wholly brown at middle.

Ab. 1. *spoliata*. Fore wing with slight whitish annulus to reniform, its lower part not filled in with white.

Ab. 2. *paradoxa*. ♂. Fore wing with blackish patch in cell between the stigmata.

Ab. 3. ♀. Thorax and fore wing bright rufous, the latter with the markings indistinct; hind wing with the cilia white at tips throughout.—Natal.

Hab. Gold Coast, Ashanti, Obuassi (*Dudgeon*), 1 ♀; Sokoura, Monkadema (*W. R. O.-Grant*), 1 ♂, Hadibu Plain (*W. R. O.-Grant*), 1 ♀; Br. E. Africa, Mombasa (*de la Garde*), 1 ♂, Eb Urru (*Betton*), 1 ♂, 2 ♀, Nairobi (*Betton*), 1 ♀, Kitwi (*Crawshay*), 1 ♀, Taveta (*Rogers*), 1 ♂; Mashonaland, Salisbury (*Marshall*), 1 ♀; Rhodesia, N'Gami (*Lugard*), 1 ♀; Transvaal (*Rose*), 1 ♀; Orange R. Col., Bloemfontein (*Eckersley*), 1 ♀; Natal, Karkloof (*Marshall*), 1 ♀, Durban (*Gooch, Leigh, Jeffery, Meade-Waldo*), 3 ♂, 6 ♀; Madagascar (*Saalmüller*), 1 ♀; China, Foo-chou-foo (*Lay*), 1 ♂; Formosa, 1 ♂; Punjab, Dharmsála (*Hocking*), 1 ♂, 1 ♀, Allahabad, 2 ♀, Moghal Sarai (*Betton*), 1 ♂; Sikhim Tibet, Yatung (*Hobson*), 1 ♂; Sikhim (*Elwes, Dudgeon*), 3 ♂, 1 ♀; Assam, Silhet, 1 ♂;

Centr. Prov., Raipur (*Bethune*), 2 ♂; Madras, Nilgiris (*Hampson*), 2 ♂, 2 ♀, Palnis (*Campbell*), 1 ♀; Ceylon, (*Nietner, Templeton, Verbury*), 5 ♂, 10 ♀ type *latipennis*, Velverry (*Verbury*), 1 ♂, 1 ♀, Trincomali (*Verbury*), 1 ♂; Burma, Moulmein (*Clark*), 1 ♀ type *spoliata*, Tounghu, 1 ♀, Heiblentaung (*Wood*), 1 ♂; Andamans, 1 ♀; Singapore (*Ridley*), 1 ♂, 2 ♀; Java (*Horsfield*), 1 ♂, 4 ♀ type *scleraumpha*; Christmas I. (*Andrewes*), 1 ♀; New Hebrides (*Mathew*), 2 ♂, 1 ♀. *Exp.* 32–42 millim.

Larva. Slender with ventral claspers on 9th and 10th somites only; warts black with a few inconspicuous drab hairs; head and anal segment ochreous with numerous black spots; body dorsally blackish with indistinct interrupted whitish lines; sides brownish ochreous with a white ocellate spot with black centre on each somite, sometimes surrounded by reddish patches; a sublateral brownish stripe; ventral surface dull yellowish, greenish or ochreous with whitish longitudinal lines and a double maculate black lateral stripe, some reddish patches in front of each spiracle; two transverse series of six raised black setiferous spots across middle of each somite; sometimes with greenish dorsal and subspiracular stripes. Food-plants: *Croton tiglium* and *C. aromaticum*, sometimes a serious pest of the former, the croton oil-plant. Pupal stage 9 days. (*E. E. Green.*)

B. Fore wing with the apex less produced; hind wing normal.
  a. Fore wing with the reniform defined by white and with some white in centre ..... *teratophora.*
  b. Fore wing with the lower part of reniform filled in with white.
    a^1. Fore wing with the orbicular represented by a white point ..... *distigmata.*
    b^1. Fore wing with the orbicular absent ..... *monocampta.*

5719. Amyna teratophora. (Plate CLXIII. fig. 15.)

Brephila teratophora, Herr.-Schäff. Aussereur. Schmett. p. 80. f. 213 (1853); Smith, Cat. Noct. N. Am. p. 49.
Erastria inscripta, Wlk. xii. 808 (1857).

Head and thorax brown tinged with grey; pectus and legs mostly white, the tarsi brown ringed with white; abdomen whitish suffused with brown leaving pale segmental rings. Fore wing dark brown tinged with grey and irrorated with fuscous: an indistinct double waved subbasal line from costa to submedian fold; antemedial line indistinct, double, waved; orbicular small, round, indistinctly defined by black, its annulus represented by a few white scales; reniform white defined slightly by black, its centre defined by small dark striæ and streaks: an indistinct sinuous line from lower angle of cell to inner margin; postmedial line indistinct with white marks beyond it at costa and inner margin, bent outwards below costa, then dentate and produced to minute white points on the veins, incurved at discal fold and below vein 4, some white points beyond it on costa; subterminal line indistinct,

defined by white on outer side at costa, irregularly dentate, angled outwards at vein 7, excurved at middle and bent outwards to tornus; a terminal series of black strigæ and minute white points at extremities of the veins; cilia with a slight pale line at middle. Hind wing pale uniformly suffused with brown; a fine brown terminal line; cilia brownish white with a brown line through them; the underside ochreous white irrorated with brown, a slight discoidal lunule and indistinct minutely waved postmedial line.

Hab. Canada; U.S.A., Illinois, W. Virginia, 1 ♀, Florida (*Doubleday*), 1 ♂ type *inscripta*, Iowa, Texas. *Exp.* 28 millim.

5720. **Amyna distigmata.**

Erastria distigmata, Hmpsn. Moths Ind. iv. p. 513 (1896).

Head and thorax dark brown slightly mixed with grey; palpi with the 1st joint white in front, the 2nd and 3rd joints tipped with white; the basal joint of antennæ mostly white; pectus and legs irrorated with white, the tarsi ringed with white; abdomen dark brown with slight grey segmental lines, the ventral surface irrorated with grey. Fore wing dark brown with a cupreous tinge and slight dark irroration; a white point at base; subbasal line represented by a white striga from costa and point below cell;

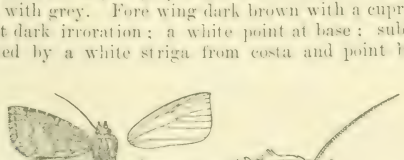

Fig. 134.—*Amyna distigmata*, ♂. ½.

antemedial line with white striga from costa, then indistinct, dark defined on inner side by white, incurved in cell, then slightly excurved; claviform absent; orbicular represented by a white point, the reniform by a round white spot below and white annulus above; postmedial line dark defined by white on outer side and with white striga from costa, slightly angled outwards below costa, bent outwards at vein 6, then minutely dentate and slightly incurved below vein 4, some small white spots beyond it on costa; subterminal line represented by a small white spot at costa, then by a series of small white lunules defined on inner side by slight brown marks, somewhat angled outwards at vein 7 and excurved at middle; a terminal series of black points with minute white points on their inner side. Hind wing deep fuscous brown, the cilia with a fine pale line at base; the underside grey thickly irrorated with dark brown, a black discoidal spot, crenulate postmedial line, diffused subterminal line, and terminal series of small black lunules.

Hab. Bhutan, 2500′ (*Dudgeon*), 1 ♂, 1 ♀ type. *Exp.* 34 millim.

5721. **Amyna monocampta**, n. sp. (Plate CLXIII. fig. 16.)

♂. Head and thorax dark red-brown; palpi black, ochreous at base and with whitish ring at extremity of 2nd joint; pectus greyish; fore tibiæ and tarsi black ringed with whitish; abdomen grey-brown. Fore wing dark red-brown; a slight pale subbasal line angled outwards below costa and ending at submedian fold; antemedial line dark defined by whitish on inner side, angled outwards below costa, strongly incurved in cell, excurved to vein 1 and bent inwards to inner margin; claviform and orbicular absent; reniform a slight bar formed of whitish and black scales with small pure white spot in its lower extremity; postmedial line dark defined by white on outer side, excurved from below costa to vein 4, then obliquely incurved, some white points beyond it on costa; subterminal line formed of small very indistinct whitish marks, more prominent towards costa, excurved at middle and incurved at discal and submedian folds; a terminal series of minute black points; cilia with a fine pale line at base. Hind wing fuscous brown, the cilia with a slight pale line at base; the underside brown irrorated with white, a black discoidal lunule and curved brown postmedial line.

Hab. Sikhim (*Lidderdale*), 1 ♂ type. *Exp.* 36 millim.

Genus **BRYOCODIA**, nov.

Type, *B. lepidula*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching about to middle of frons and moderately scaled, the 3rd moderate; frons with small rounded prominence with corneous plate below it and ridge of scales above it; eyes large, round; antennæ of male somewhat laminate and minutely ciliated; thorax clothed almost entirely with scales, the pro- and metathorax with large spreading crests; tibiæ moderately fringed with hair; abdomen with dorsal crests except on terminal segments, the crests on 3rd and 4th segments large. Fore wing with the apex rounded, the termen evenly curved and slightly crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the orbicular and reniform confluent below.
  a. Fore wing with the ground-colour emerald green ..... *lepidula*.
  b. Fore wing grey suffused with dark brown ..... *avirida*.
B. Fore wing with the orbicular and reniform not confluent below.
  a. Fore wing with the ground-colour pale sap-green ..... *pictula*.
  b. Fore wing pale reddish brown ..... *mediana*.

5722. **Bryocodia lepidula**.

Jaspidea lepidula, Grote, 6th Rep. Peab. Ac. Sci. p. 23 (1874); id. Bull. Buff. Soc. Nat. Sci. ii. pl. 1. f. 3; Smith, Cat. Noct. N. Am. p. 49.

Head, tegulæ, thoracic crests, and base of patagia rufous mixed with some white and black, the vertex of thorax and rest of patagia

blue-green and white, the latter with black line near upper edge; palpi blackish at sides; frons with black bar; tibiæ and tarsi banded with black; abdomen white mixed with rufous, the crests black at tips. Fore wing emerald green, the antemedial costal area, the medial area, and the postmedial area except towards costa and inner margin mostly suffused with rufous; subbasal line represented by two diffused black bars from costa, a point below base of cell and a spot above vein 1; antemedial line double towards costa and inner margin, black filled in with white at costa and the veins,

Fig. 135.—*Bryocodia lepidula*, ♂. ½.

incurved in cell and slightly angled inwards at vein 1; orbicular and reniform large, green with incomplete white annuli defined by a few black scales, confluent in lower part of cell and with V-shaped black mark between them in upper part; a medial blackish bar from costa and oblique line from cell to inner margin; postmedial line represented by double black bars from costa filled in with white, then by a series of double black points on the veins with some white between them, bent outwards below costa and strongly incurved below vein 4, with alternating black and white spots beyond it on costa; subterminal line only defined by a blackish patch before it on costa and the rufous suffusion at middle, excurved below vein 7 and at middle; a terminal series of black points; cilia chequered blackish and rufous with a black line at middle. Hind wing whitish tinged with red-brown; cilia yellowish white with a brown line through them; the underside yellowish white slightly irrorated with brown, a black discoidal spot and indistinct sinuous postmedial line.

Hab. Canada, U.S.A., Maine to New Jersey, New York; Evans Center (*Grote*), 1 ♂, Delaware, Pennsylvania, Minnesota, Missouri, 1 ♂, 1 ♀ type, Colorado. *Exp.* 36 millim.

5723. Bryocodia avirida. (Plate CLXIII. fig. 17.)

Bryophila avirida, Smith, J. N.Y. Ent. Soc. xiv. p. 10 (1906).

Head and thorax grey-white mixed with some dark brown scales; palpi and frons black at sides; tibiæ and tarsi banded with blackish; abdomen grey-white suffused with brown, the crests blackish. Fore wing grey-white thickly irrorated and suffused with dark brown; the costal area strongly suffused with black-brown to beyond middle, expanding into triangular patches to near median nervure before

and beyond the orbicular; the dark area with a sinuous black streak defined below by white on basal area; antemedial line black defined on inner side by whitish from cell to inner margin, slightly angled outwards below costa, then sinuous; orbicular and reniform large, with whitish annuli, the former defined by black except below where it expands, the latter on inner side only, angled inwards in lower part of cell and confluent with the former; postmedial line indistinct from costa to vein 3, then black defined by whitish on outer side, bent outwards below costa, incurved and minutely dentate below vein 4; subterminal line very indistinct, whitish slightly defined on inner side by brown and with triangular dark patch before it on costa, excurved below vein 7 and at middle; a terminal series of minute dark striæ; cilia whitish at base, dark brown at tips. Hind wing whitish suffused and irrorated with brown; the underside white tinged with brown and irrorated with black, a slight discoidal spot.

Hab. CANADA, Manitoba, Cartwright, Alberta, Red Deer R. (*Wolley-Dod*), 1 ♂; U.S.A., New York, 1 ♀, Colorado, Fort Collins. *Exp.* 32 millim.

5724. Bryocodia pictula. (Plate CLXIII. fig. 18.)

Microcælia pictula, Schaus, Trans. Am. Ent. Soc. xxi. p. 224 (1894).

♂. Head and thorax white mixed with some brown and pale green scales; palpi blackish at sides except at extremities of 2nd and 3rd joints; frons blackish below; antennæ fuscous ringed with white; pectus and legs ochreous white, the tarsi banded with black; abdomen ochreous dorsally suffused with fuscous, ventrally irrorated with fuscous. Fore wing sap-green irrorated with some white especially on costal half of medial area; the costa black towards base with some crimson scales on it; subbasal blackish marks in cell and above inner margin; an indistinct white antemedial line angled inwards on vein 1; orbicular and reniform with indistinct white annuli, the former round with some crimson scales near its outer edge, the latter with some crimson scales near its inner edge, a quadrate black patch between them in cell; a medial black bar from costa and indistinct oblique sinuous line from cell to inner margin; postmedial line double filled in with whitish, bent outwards below costa, then minutely waved, excurved to vein 4, then incurved, some white points with black streaks between them beyond it on costa; subterminal line indistinct, whitish with series of crimson marks on it except towards costa and inner margin, defined on inner side by black-brown forming a patch below vein 7 where the line is excurved, incurved at discal fold, excurved and minutely waved at middle with a dark streak from it to termen; a terminal series of small black lunules; cilia greyish at base, blackish at tips. Hind wing greyish suffused with fuscous brown, a terminal series of slight black lunules; cilia with fine white line at base; the

underside whitish irrorated with brown, a small discoidal spot and curved minutely waved postmedial line.

Hab. Brazil, Castro Paraña (*D. Jones*), 1 ♂. *Exp.* 30 millim.

5725. Bryocodia mediana. (Plate CLXIII. fig. 19.)

Turache mediana, Schaus, Trans. Am. Ent. Soc. xxx. p. 158 (1904).

♂. Head and thorax rufous; palpi black at sides except at base; frons with slight lateral black bars; a black bar between antennæ; tegulæ with some black scales at middle; fore legs blackish in front; abdomen whitish dorsally tinged with rufous and irrorated with fuscous, the crests black. Fore wing pale rufous slightly irrorated with black, the medial area suffused with black; antemedial line double filled in with whitish, angled outwards below costa, then oblique and excurved at submedian fold; orbicular represented by some black scales; reniform a conical white patch defined at sides by black scales; postmedial line indistinct, double, excurved from below costa to vein 4, then incurved to lower extremity of reniform and oblique to inner margin; a black patch on costal area with some white points at costa before the subterminal line which is represented by a series of black points, incurved below vein 3; a terminal series of small black lunules. Hind wing pale brown; a terminal series of small black lunules; a fine pale line at base of cilia; the underside whitish tinged with rufous and irrorated with fuscous, a black discoidal spot and curved minutely waved postmedial line.

Hab. Brazil, Castro Paraña (*D. Jones*), 1 ♂. *Exp.* 24 millim.

Genus **CHLORHODA**, nov.

Type, *C. metacausta*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd long; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales, the pro- and metathorax with large spreading crests; tibiæ moderately fringed with hair; abdomen with dorsal crests on basal segments. Fore wing with the apex rounded, the termen evenly curved and slightly crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5726. Chlorhoda metacausta, n. sp.

Head and thorax pale green mixed with some white, black and fiery red scales, the prothoracic crest mostly red, the metathoracic crest mostly green; palpi pale red with some black at sides of 2nd and 3rd joints; frons with lateral black bars; pectus and legs pale red, the fore tibiæ and tarsi banded with blackish, the mid and hind tibiæ streaked with black; abdomen pale red, the crest on 2nd segment tipped with black. Fore wing pale yellow-green mixed with whitish; subbasal line represented by a black point on costa

with a red striga from it and some red and black scales below the cell; antemedial line very indistinct, whitish, waved, with black points on costa and vein 1 and red point on median nervure; orbicular and reniform with very indistinct white annuli, the former round, the latter constricted at middle and slightly angled

Fig. 136.—*Chlorhoda metacausta*, ♂. ½.

inwards on median nervure, an oblique black and red band between them from costa to vein 2, a red point in latter above median nervure and two red points beyond its lower extremity; postmedial line very indistinct, whitish, with black point at costa, bent outwards below costa, then with series of black points beyond it, oblique below vein 4, some whitish points with slight blackish streaks between them beyond it on costa; subterminal line very indistinct, whitish, dentate, with red marks with some black scales on them below vein 7 and at middle and inner margin; a terminal series of black points; cilia pale red. Hind wing pale blood-red. Underside of both wings whitish suffused with blood-red.

Hab. Cuba, Baracoa (*Schaus*), 3 ♂, 3 ♀ type. *Exp.* 26–32 millim.

Genus **CHAMYRIS**.

Type.

Chamyris, Guen. Noct. ii. p. 225 (1852) ..... *cerintha*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and moderately scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male minutely ciliated; thorax clothed entirely with large scales, the prothorax without crests, the mesothorax with slight paired crests, the metathorax with spreading crests; tibiæ moderately fringed with hair; abdomen with dorsal series of crests, the crest on 4th segment very large. Fore wing with the apex rounded, the termen oblique from vein 4 to tornus and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from well below middle of dicocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5727. Chamyris cerintha.

Acontia cerintha, Treit. Schmett. Eur. v. 3. p. 240 (1825); Herr.-Schäff. Schmett. Eur., Noct. f. 446; Smith, Cat. Noct. N. Am. p. 301.

Head and thorax yellow-brown mixed with some black, blue-grey and white scales; palpi white at base; tegulæ with black band near base defined by blue-grey above; pectus and legs white mixed

with brown, the tarsi black ringed with white; abdomen whitish dorsally banded with grey, the crests rufous mixed with white. Fore wing white, the medial area towards costa and inner margin and the terminal area suffused with blue-grey; subbasal line represented by a blackish point on costa and slight streak in cell; some brown suffusion above base of inner margin; a broad oblique blue-grey and yellow-brown antemedial band, its inner edge excurved at middle, the very incomplete antemedial line near its outer edge

Fig. 137.—*Chamyris cerintha*, ♂. ½.

black slightly defined by white on inner side, formed by a curved mark below costa and mark angled outwards below the cell, obscurely double towards inner margin; orbicular and reniform extremely slightly defined by blackish, the former elliptical, the latter irregular and somewhat constricted at middle, a very slight oblique streak between them; traces of a treble waved blue-grey medial line; postmedial line with dark mark at costa, strongly bent outwards and almost obsolete below costa, then represented by a grey-brown band with interrupted lunulate black line on its outer edge, slightly incurved at discal fold, excurved and interrupted by white streaks on the veins at middle, then incurved, some white points beyond it on costa: a fine lunulate white subterminal line with black spot before it below costa; cilia white at base, rufous at tips. Hind wing semihyaline white with terminal series of dark striæ; the underside with small brown discoidal spot.

Hab. Canada; U.S.A., Eastern, Middle, Southern, and Central States, Massachusetts (*Burg*), 1 ♂, 1 ♀, New York (*Doubleday, Packard*), 2 ♂, 3 ♀, Schenectady (*Lintner*), 1 ♂, 1 ♀, Evans Center (*Grote*), 1 ♂, Pennsylvania, New Brighton (*Merrick*), 2 ♂, Virginia, 1 ♀, Florida, 1 ♂. *Exp.* 30–36 millim.

Larva. Head green with two black lines, approximate at vertex. Body slender with stiff single hairs, green, a white subdorsal line, the dorsal space purple-brown. Food-plant: Wild Cherry (*Prunus serotina*).—H. G. D.

Genus **ARGILLOPHORA**.

Type.

Argillophora, Grote, Bull. Buff. Soc. Nat. Sci. i. p. 124 (1873)..... *furcella*.

Proboscis aborted, minute; palpi upturned, the 2nd joint reaching about to middle of frons and rather broadly scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of female with bristles and cilia; thorax clothed almost entirely with scales, the prothorax without crest, the mesothorax with slight paired crests, the metathorax with spreading crest; tibiæ slightly

fringed with hair; abdomen with dorsal series of crests. Fore wing with the apex rectangular, the termen somewhat excised towards tornus, not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from well above angle; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

5728. Argillophora furcilla.

Argillophora furcilla, Grote, Bull. Buff. Soc. Nat. Sci. i. p. 124 (1873); Smith, Cat. Noct. N. Am. p. 375.

♀. Head, thorax, and abdomen pale pinkish with a few black scales; palpi blackish at sides except towards base; frons with black bars at middle and above; abdomen with the crest on 3rd segment tipped with black. Fore wing ochreous tinged with flesh-pink and slightly irrorated with black, except on costal area from near base to apex, a darker shade along median nervure met by an oblique shade from apex; small black spots in base and middle of cell; a white streak on base of vein 1; an oblique V-shaped silvery

Fig. 138.—*Argillophora furcilla*, ♀. ½.

white mark slightly defined by black, its inner arm on the disco-cellulars, with an oblique white line slightly defined on inner side by black from its lower extremity to the extremity of the streak on vein 1; a terminal series of black points; cilia with some black scales at tips. Hind wing ochreous white suffused and irrorated with brown; a terminal series of dark striæ; cilia ochreous white with a dark line through them; the underside with small black discoidal spot and traces of postmedial line excurved beyond the cell.

Hab. U.S.A., Alabama, 1 ♀ type. *Exp.* 30 millim.

Genus **ARGYROPASTA**, nov.

Type, *A. thermopera*.

Proboscis aborted, small; palpi upturned, the 2nd joint reaching to vertex of head, the 3rd short; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed chiefly with scales and without distinct crests; tibiæ slightly fringed with hair; abdomen with dorsal series of crests, rather large on terminal segments. Fore wing rather narrow and elongate, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, and 10 stalked, 9 absent; 11 from cell. Hind wing with veins 3, 4 shortly stalked; 5 nearly fully developed from below middle of discocellulars; 6, 7 shortly stalked; 8 anastomosing with the cell to near middle.

5729. Argyropasta thermopera, n. sp.

Head, thorax, and abdomen reddish brown with a fuscous grey tinge; pectus, legs, and ventral surface of abdomen whitish tinged with brown. Fore wing fuscous brown tinged with leaden grey and slightly irrorated with silvery scales, the apical area rufous; an inwardly oblique blackish antemedial shade from cell to inner margin; a very oblique elliptical black discoidal spot filled in with rufous; postmedial line dark defined on outer side by whitish

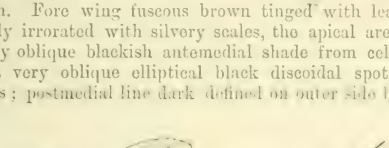

Fig. 139.—*Argyropasta thermopera*, ♂. $\frac{3}{2}$.

and on both sides towards costa, oblique from costa to discal fold, then incurved and angled outwards at vein 1; subterminal line indistinct, pale defined on inner side by rufous from costa to vein 4 then dark, angled outwards at vein 7 and middle; a terminal series of black points with whitish points beyond them at base of cilia. Hind wing dark reddish brown with indistinct discoidal spot; the underside whitish tinged with brown, a fuscous discoidal spot.

Hab. Brazil, Sta. Catherina, 1 ♂, 2 ♀ type. *Exp.* 24–26 millim.

Genus **MICRANTHA**, nov.

Type, *M. mirabilis*.

Proboscis fully developed; palpi porrect, extending about the length of head, the 2nd joint with triangular tuft of scales above, the 3rd short, clothed with scales; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed chiefly with scales, the prothorax without crest, the metathorax with spreading crest; tibiæ moderately fringed with hair; abdomen with dorsal series of crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 and 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the subterminal line strongly excurved.
  a. Fore wing with wedge-shaped black patch in cell before the antemedial line ..... *janeira*.
  b. Fore wing without black patch in cell before the antemedial line ..... *mirabilis*.
B. Fore wing with the subterminal line sinuous ..... *cyclopis*.

5730. Micrantha mirabilis.

Erastria mirabilis, Schaus, Trans. Am. Ent. Soc. xxx. p. 161 (1904).

♂. Head dark brown, the scales tipped with whitish; thorax dark brown mixed with ochreous; tarsi dark brown ringed with ochreous; abdomen dark brown mixed with ochreous white. Fore wing ochreous white, the costal area suffused with rufous to the postmedial line, extending beyond the postmedial line to vein 2; subbasal line represented by a slight striga from costa; traces of an erect antemedial line from costa to submedian fold; medial line oblique, waved, from costa to submedian fold; reniform large, whitish, tinged with rufous and defined by brown; postmedial line

Fig. 140.—*Micrantha mirabilis*, ♂. $\frac{2}{3}$.

double, strongly excurved, the inner line almost obsolete below submedian fold; terminal area black-brown with some rufous on its inner edge, expanding towards costa and with wedge-shaped pale mark on it from costa to discal fold just before apex; cilia greyish tinged with pink and with blackish lines at middle and tips. Hind wing ochreous white tinged with brown, a slight discoidal spot, curved postmedial line, and fine terminal line; cilia whitish with dark lines at middle and tips; the underside whitish irrorated with brown, the postmedial line with minute dark streaks on the veins.

Hab. Brazil, Rio Janeiro (*Wilson*), 1 ♂. *Exp.* 20 millim. Type † in U.S. Nat. Mus.

*5731. Micrantha janeira. (Plate CLXIII. fig. 20.)

Pseudina janeira, Schaus, Trans. Am. Ent. Soc. xxx. p. 163 (1904).

♀. Head and thorax ochreous mixed with red-brown; frons blackish above; tarsi blackish with pale rings; abdomen ochreous tinged with brown. Fore wing whitish suffused in parts with brown especially on costal area towards base and apex and from lower angle of cell to inner margin; the costa black towards base; subbasal line represented by a small black spot below costa; a wedge-shaped blackish patch in cell before the antemedial line, which has a blackish spot below costa, then double, excurved and waved to above vein 1 on which it is slightly angled inwards; orbicular and reniform indistinct, with whitish annuli, the former rounded, the latter with dark point at upper extremity, its lower

extremity produced to two points with some brown on the veins, somewhat angled inwards on median nervure; postmedial line brown, oblique towards costa, then dentate, excurved to vein 4, then oblique; subterminal line double, the inner line slight with black point at costa, the outer very strong, black and highly curved, its outer edge produced to slight points below costa and with another fine line beyond it; a fine lunulate black line just before termen. Hind wing whitish suffused with brown; an indistinct curved postmedial line; cilia whitish; the underside white slightly irrorated with brown, traces of diffused brown medial and postmedial lines, a terminal series of slight black lunules.

Hab. Brazil, Rio Janeiro, type † ♀ in U.S. Nat. Mus. *Exp.* 34 millim.

5732. **Micrantha cyclopis**, n. sp. (Plate CLXIII. fig. 21.)

♀. Head white, the palpi irrorated with fuscous, the antennæ black ringed with white; thorax ochreous white irrorated with black; abdomen ochreous white with slight silvery segmental lines and the crests tipped with black; pectus, legs, and ventral surface of abdomen white irrorated with fuscous, the tarsi banded with fuscous. Fore wing ochreous irrorated with black and suffused with silvery purple except on basal area; a slight subbasal black striga from costa; antemedial line black, incurved in cell; claviform defined by black at extremity; orbicular ochreous defined by black on outer side, round; reniform ochreous defined by black, with blackish centre and some white on outer edge, elliptical; a rather diffused sinuous black medial line; postmedial line double, black filled in with ochreous, oblique towards costa, slightly incurved at discal fold, incurved and waved below vein 4, some white points beyond it on costa; subterminal line defined on inner side by black suffusion, minutely dentate, strongly angled inwards in discal fold; a terminal series of small black lunules; cilia ochreous mixed with black at base, then white with some black at tips. Hind wing greyish suffused with brown; a terminal series of black striæ; cilia whitish with a black line through them; the underside white irrorated with brown.

Hab. Panama, La Chorrera (*Dolby-Tyler*), 1 ♀ type. *Exp.* 16 millim.

Genus ŒDERASTRIA.

Type

Œderastria, Hmpsn. Ann. S. Afr. Mus. ii. p. 375 (1902) ..... *cetorhoda*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching about to middle of frons and moderately scaled, the 3rd moderate; frons with rounded prominence; eyes large, round; antennæ of male bipectinate with short branches, the apex serrate; thorax clothed almost entirely with scales, the pro- and metathorax with spreading crests; tibiæ moderately fringed with hair; abdomen with dorsal crests on basal segments, the crest on 3rd segment large. Fore wing with the apex rounded, the termen evenly curved, crenulate.

the inner margin with scale-tooth near tornus; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5733. Œderastria ectorhoda.

Œderastria ectorhoda, Hmpsn. Ann. S. Afr. Mus. ii. p. 375 (1902).

♂. Head and thorax black-brown mixed with bright rufous, palpi black; pectus and legs with some whitish mixed, the tarsi fuscous ringed with white; abdomen rufous mixed with dark brown, the crests tipped with black. Fore wing black-brown mixed with some rufous and with a silvery grey gloss, the terminal area bright rufous with a black spot glossed with grey at apex; subbasal line represented by double black striæ filled in with rufous from costa; antemedial line double, black filled in with rufous, sinuous, with an oblique black mark before it above inner margin; claviform moderate, with slight grey annulus defined by black;

Fig. 141.—*Œderastria ectorhoda*, ♂. ½.

orbicular and reniform with rufous annuli defined by black, the former round, the latter elliptical: medial line indistinct, oblique to reniform and incurved below the cell: postmedial line double filled in with pale rufous and defined by pale rufous on outer side, bent outwards below costa, then minutely dentate, excurved to vein 4, then incurved, some minute whitish points beyond it on costa; subterminal line indistinct, pale rufous, angled outwards at veins 7, 6, 4, 3, then incurved; a fine waved dark terminal line; cilia pale rufous at base. Hind wing pure white; a fine red-brown terminal line; cilia red-brown at apex; the underside with the costal area tinged with rufous, a slight discoidal spot and rather diffused curved postmedial line from costa to vein 2,

Hab. Mashonaland, Salisbury (*Marshall*), 3 ♂ type. *Exp.* 28–30 millim.

Genus **ORTHOLEUCA**, nov.

Type, *O. albiluna*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to middle of frons and moderately scaled, the 3rd short; frons with rounded prominence with slight raised corneous ring at extremity; eyes large, round; antennæ of male minutely ciliated; thorax clothed chiefly with scales and

without crests; tibiæ smoothly scaled; abdomen with dorsal crests on 3rd and 4th segments. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5734. Ortholeuca albiluna, n. sp.

Head, thorax, and abdomen cupreous red with a greyish tinge; pectus, legs, and ventral surface of abdomen white tinged with rufous. Fore wing cupreous red; subbasal and antemedial lines and orbicular absent; reniform a narrow white lunule defined by blackish and constricted at middle; postmedial line double, filled

Fig. 142.—*Ortholeuca albiluna*, ♂. ½.

in by pure white at costa and from lower angle of cell to inner margin, excurved from below costa to vein 5, then incurved to lower angle of cell and sinuous to inner margin, some white points beyond it on costa: a fine whitish line at base of cilia. Hind wing pale cupreous brown; cilia with a fine whitish line at base; the underside whitish irrorated with cupreous red.

Hab. Panama, La Chorrera (*Dolby-Tyler*), 1 ♂, 1 ♀ type. *Exp.* 22 millim.

Genus XANTHOZONA, nov.

Type, *X. leucoglene*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male somewhat laminate and almost simple; thorax clothed chiefly with scales and without crests; tibiæ moderately fringed with hair; abdomen with dorsal crests on basal segments, the crest on 3rd segment large. Fore wing with the apex rounded, the termen evenly curved, crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5735. Xanthozona leucoglene.

Erastria leucoglene, Mab. Bull. Soc. Ent. Belg. xxiii. p. xviii (1880); Saalm. Lep. Madag. p. 355, f. 229.

Head, thorax, and abdomen fuscous mixed with grey; palpi, pectus, legs, and ventral surface of abdomen cupreous white irrorated

with fuscous, the tarsi black ringed with whitish. Fore wing purplish grey largely suffused and irrorated with black; subbasal line pinkish, excurved below costa and ending at submedian fold; a fulvous yellow band before the fine black antemedial line, which is slightly angled outwards in cell and submedian fold; claviform and orbicular absent; reniform yellowish white defined by black, round; postmedial line double filled in with pinkish and defined by pinkish on outer side, minutely waved, oblique to vein 6, incurved at discal fold and below vein 4, some white points beyond it on costa and a black streak in discal fold; a series of pale fulvous lunules defined on each side by blackish except towards costa

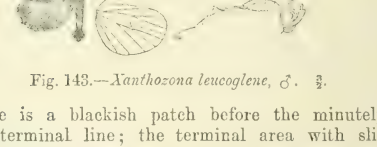

Fig. 143.—*Xanthozona leucoglene*, ♂. ¾.

where there is a blackish patch before the minutely dentate pinkish subterminal line; the terminal area with slight black streaks above and below discal fold; a terminal series of minute black lunules; cilia fuscous with a pinkish line at base. Hind wing fuscous with a greyish tinge; cilia with a whitish line through them; the underside whitish thickly irrorated with black, a blackish discoidal spot and indistinct diffused curved postmedial and subterminal lines.

Hab. Br. E. Africa, Tangani (*Jackson*), 1 ♂: Uganda, Entebbe (*Minchin*), 1 ♂; Natal, Malvern (*Marshall*), 1 ♀, Durban (*Bowker*, *Leigh*), 1 ♂, 2 ♀; Madagascar, D'Antongil Bay (*Mocquerys*), 1 ♀. *Exp.* 18–20 millim. Type † in Coll. Mabille.

Genus **HYPERCODIA**, nov.

Type, *H. disparilis*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head and moderately scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed chiefly with scales and without distinct crests; tibiæ moderately fringed with hair; abdomen with dorsal crests on basal segment, the crest on 3rd segment large. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 obsolescent from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5736. **Hypercodia disparilis.**

Motina disparilis, Wlk. xxvii. 13 (1863).

Head, thorax, and abdomen white mixed with brownish ochreous.

the last with the crest on 3rd segment tipped with black. Fore wing whitish suffused with rufous, leaving the inner area and a patch on costa before apex whitish; faint traces of two oblique rufous antemedial lines from costa to submedian fold and traces of an oblique rufous discoidal bar with some whitish beyond it; postmedial line dentate, very indistinct and oblique from costa to vein 6, inwardly oblique, waved, and with white suffusion beyond

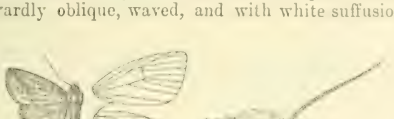

Fig. 144.—*Hypercodia disparilis*, ♂. ½.

it from vein 3 to inner margin; a terminal series of slight brown lunules; cilia white mixed with rufous. Hind wing whitish uniformly suffused with rufous; the underside white slightly irrorated with rufous, the costal area suffused with rufous, a dark discoidal point, indistinct minutely waved curved postmedial line, and terminal series of points.

Hab. Borneo, Sarawak (*Wallace*), 1 ♂, 1 ♀ type. *Exp.* ♂ 20, ♀ 24 millim.

Genus **RHYNCHODIA**, nov.

Type, *R. mesophæa*.

Proboscis fully developed; palpi with the 2nd joint bent forward at extremity and projecting about twice the length of head, the 3rd long and porrect; frons smooth; eyes large, round; antennæ of male somewhat laminate and minutely ciliated; thorax clothed almost entirely with scales and without crests; tibiæ moderately fringed with hair; abdomen with dorsal series of crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7, 8, 9, 10 stalked; 11 from cell; male with the cell, the area just beyond it and below it to submedian fold clothed on underside with black androconia. Hind wing with veins 3, 4 shortly stalked; 5 nearly fully developed from below middle of discocellulars; 6, 7 shortly stalked; 8 anastomosing with the cell near base only.

5737. **Rhynchodia mesophæa**, n. sp.

♂. Head and thorax pale rufous slightly mixed with fuscous; fore tibiæ and tarsi blackish with pale rings; abdomen pale rufous dorsally suffused with black except towards extremity and with slight segmental lines, the ventral surface irrorated with black. Fore wing rufous, the antemedial costal area and the medial area suffused with blackish, some grey suffusion between end of cell and postmedial line; subbasal line represented by a curved black striga from costa; some blackish at base of inner margin;

antemedial line indistinct, blackish defined by ochreous on inner side, curved; orbicular minute, round, rufous defined by black; reniform small, elliptical, with rufous centre and greyish annulus defined by black; postmedial line double, filled in with grey to discal fold where it is interrupted by a black spot, then filled in with white, bent outwards below costa, excurved to vein 4, then

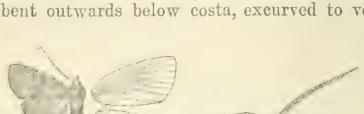

Fig. 145.—*Rhynchodia mesophæa*, ♂. ½.

obliquely incurved, some pale points beyond it on costa; subterminal line represented by a faint oblique pale striga from costa; a terminal series of black points; cilia with dark line at middle and blackish tips. Hind wing fuscous brown, the costal area paler; a terminal series of blackish striæ; cilia rufous with a dark line at middle. Underside of fore wing clothed with black androconia to submedian fold and beyond middle; hind wing ochreous white irrorated with fuscous, a black discoidal spot, sinuous punctiform postmedial line, and terminal series of black points.

Hab. Travancore, Pirmád (*Mrs. Imray*), 1 ♂, 1 ♀ type. *Exp.* 26 millim.

Genus ERASTROIDES.

	Type.
Erastroides, Hmpsn. Ill. Het. B. M. ix. p. 98 (1893)	*oliviaria.*

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching about to vertex of head and rather broadly scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male somewhat laminate and minutely ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the mesothorax with slight paired crests, the metathorax with spending crest; tibiæ moderately fringed with hair; abdomen with dorsal series of crests. Fore wing with the apex rounded, the termen rather oblique towards tornus and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Fore wing with the termen excurved at middle and excised below apex and towards tornus; hind tibiæ with large tuft of scales at middle above.

5738. Erastroides emarginata, n. sp.

♂. Head, thorax, and abdomen ochreous white mixed with brown; pectus white, the tarsi pure white. Fore wing ochreous suffused with rufous, the antemedial area and a postmedial patch on costa whitish,

the basal area and the terminal area except at apex irrorated with black; a curved black antemedial line obsolescent towards costa; postmedial line blackish, oblique, waved, from vein 6 to inner margin; a waved blackish subterminal line from vein 7 to inner

Fig. 146.—*Erastroides emarginata*, ♂. ♀.

margin, strongly incurved at submedian fold, some whitish on its outer edge; cilia black at middle. Hind wing fuscous brown, the cilia yellowish; the underside greyish suffused with brown and irrorated with black especially on costal and terminal areas, a black discoidal point, oblique subterminal line ending at tornus, and terminal line.

Hab. Panama, Cana Mines (*Tylecote*), 1 ♂ type. *Exp.* 16 millim.

Sect. II. Fore wing with the termen evenly curved.

A. Fore wing with the ground-colour greenish.
  a. Fore wing with the stigmata filled in with pure white ... *albiguttata*.
  b. Fore wing with the stigmata not filled in with white.
    a^1. Fore wing with the patches of orange on basal and inner medial areas ... *fuscibasis*.
    b^1. Fore wing without patches of orange on basal and inner medial areas ... *hyrcanica*.
B. Fore wing with the ground-colour not greenish.
  a. Fore wing with the postmedial line minutely waved ..... *oliviaria*.
  b. Fore wing with the postmedial line not waved.
    a^1. Hind wing ochreous yellow ..... *fausta*.
    b^1. Hind wing not yellow.
      a^2. Fore wing with the terminal area not ochreous tinged with rufous.
        a^3. Fore wing with the postmedial line oblique below vein 6 ... *subfusca*.
        b^3. Fore wing with the postmedial line excurved to vein 4, then incurved ..... *mesomela*.
        c^3. Fore wing with the postmedial line excurved to vein 3, then incurved ... *emarginata*.
      b^2. Fore wing with the terminal area ochreous tinged with rufous ... *pyrrhia*.

5739. Erastroides albiguttata. (Plate CLXIII. fig. 22.)

Erastroides albiguttata, Druce, A. M. N. H. (8) iii. p. 463 (1909).

Head and thorax yellow-green tinged with rufous; palpi black with white rings at extremities of 2nd and 3rd joints; antennæ

black; fore tibiæ and the tarsi black ringed with yellowish; abdomen greenish tinged with rufous and irrorated with fuscous. Fore wing yellow-green; the costal edge black on basal half; subbasal line black, from costa to submedian fold; antemedial line with black striga from costa, below the cell black slightly defined by white on inner side and with rufous patch before it on inner area, slightly angled inwards in submedian fold, then oblique to above inner margin; claviform and orbicular round white spots defined by black, the latter small; reniform large, white defined by black except above where it is diffused to costa, constricted at middle: a medial black shade, oblique from costa to reniform, inwardly oblique below the cell; postmedial line black, bent outwards and interrupted below costa by the white above reniform then defined on outer side by whitish, minutely waved, excurved to vein 4, then oblique, with triangular white patch beyond it on inner margin and some white points on costa with black streaks between them; subterminal line defined on inner side by a broad band of black suffusion from costa to vein 2 extending to the excurved part of postmedial line, white towards costa, angled outwards at vein 7 and inwards at discal fold, excurved at middle and bent inwards at vein 2, some black points beyond it at apex and middle; a terminal series of black striæ with white points between them; cilia black-brown mixed with greenish. Hind wing whitish tinged with brown, the terminal area suffused with brown, in female wholly suffused with cupreous brown; a fine black terminal line; cilia whitish mixed with fuscous and with fuscous line through them; the underside white irrorated with black except beyond the cell from below costa to vein 2, a black discoidal spot and curved crenulate postmedial line.

Hab. Peru, S. Domingo (*Ockenden*), 1 ♂. *Exp.* 24 millim. Type † ♂ in Coll. Druce.

5740. Erastroides flavibasalis. (Plate CLXIII. fig. 23.)

Erastroides flavibasalis, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 445 (1897).

♂. Head and thorax pale brownish ochreous; palpi black mixed with white, the extremities of 2nd and 3rd joints ochreous; antennæ black; patagia with some white scales at tips; tibiæ and tarsi blackish irrorated with white, the tarsi with pale rings; abdomen ochreous whitish irrorated with fuscous, the crests blackish. Fore wing olive-green, a patch of orange on basal area and another on inner medial area, the costa and medial and postmedial areas except towards inner margin suffused with black and irrorated with blue-white; some blue-white striæ on costa; antemedial line black, obsolete on costal area, obliquely curved from cell to inner margin; a black point in middle of cell; a whitish discoidal lunule defined by black at sides, the white produced to slight streaks on the veins beyond upper and lower angles of cell; an incurved black line from lower angle of cell to inner margin;

postmedial line double, black filled in with blue-white scales, single and defined by white on outer side below vein 2, bent outwards below costa, then minutely waved, slightly incurved at discal fold, incurved below vein 4; subterminal line defined on inner side by black suffusion, excurved below vein 7 and at middle; the terminal area with blackish and blue-white streaks on the veins; a terminal series of black striæ; cilia whitish and fuscous with a blackish patch at middle. Hind wing grey suffused with brown; cilia ochreous white with a dark line through them; the underside whitish thickly irrorated with fuscous, a discoidal spot, curved postmedial line, and terminal series of striæ.

Hab. Assam, Khásis, 1 ♂ type. *Exp.* 24 millim.

5741. **Erastroides hermosilla.** (Plate CLXIII. fig. 24.)

Eustrotia hermosilla, Schaus, Trans. Am. Ent. Soc. xxx. p. 155 (1904).

Head and thorax whitish faintly tinged with rufous and mixed with some black; palpi blackish, the extremity of 2nd joint whitish; tibiæ and tarsi banded with blackish; abdomen whitish dorsally tinged with rufous, the crests mixed with black. Fore wing pale olive-green irrorated with black except on terminal area; subbasal line represented by a slight black striga from costa with minute streak from its extremity on subcostal nervure; antemedial line double, black, the inner line indistinct, oblique, excurved from below costa to submedian fold and above inner margin, with a diffused black fascia in submedian fold from it to postmedial line, narrower at middle and with minute white streak on its upper edge; the medial area suffused in parts with rufous especially before postmedial line; a white fascia on median nervure expanding into a patch in cell beyond the antemedial line; reniform small with whitish annulus at sides confluent with the streak on median nervure, its centre slightly defined by black, a slight black streak before it in lower part of cell; a slight dark spot on middle of costa; postmedial line black, double filled in with white and with rufous towards inner margin, minutely waved, strongly excurved from costa to vein 4, then incurved; subterminal line white defined on inner side by black marks and by a large diffused black patch below costa, excurved below costa and at middle and angled inwards at discal fold; a terminal series of black striæ interrupted by white points at the veins; cilia grey mixed with black. Hind wing white suffused with fuscous brown except on costal area to beyond middle; a faint minutely waved postmedial line defined by whitish on outer side; a terminal series of black striæ; the underside white irrorated with fuscous, a black discoidal spot and curved waved postmedial line.

Hab. Brazil, São Paulo (*D. Jones*), type † ♂ in U.S. Nat. Mus.; Paraguay, Sapucay (*Foster*), 1 ♀. *Exp.* 24 millim.

5742. Erastroides oliviaria.

Erastroides oliviaria, Hmpsn. Ill. Het. B. M. ix. p. 99, pl. 162. f. 23 (1893); id. Moths Ind. ii. p. 303.

♂. Head and thorax ochreous tinged with rufous and mixed with blackish; fore tibiæ and tarsi blackish with pale rings; abdomen whitish suffused with rufous, the crests blackish at tips. Fore wing rufous suffused and irrorated with fuscous; subbasal line represented by double blackish striæ from costa filled in with ochreous; antemedial line double filled in with ochreous, oblique, minutely waved; claviform slightly defined by blackish at extremity; orbicular slightly defined by blackish, round; reniform with slight whitish annulus faintly defined by blackish, elliptical; medial line represented by a dark bar from costa and faint oblique sinuous line from lower angle of cell to inner margin; postmedial line double filled in with whitish, bent outwards below costa, then minutely

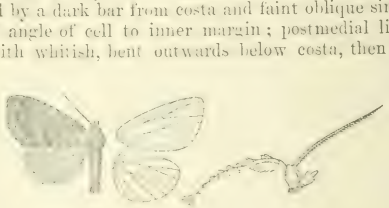

Fig. 147.—*Erastroides oliviaria*, ♂. ¾.

waved, excurved to vein 5, then oblique, some white points with short black streaks between them beyond it on costa; subterminal line whitish, angled outwards at vein 7, oblique between veins 6 and 4, then obsolete; a terminal series of small black lunules slightly defined by white on inner side; cilia with a blackish line at middle, the tips fuscous and white. Hind wing whitish suffused with brown, a terminal series of dark striæ; cilia with a dark line at middle; the underside whitish tinged with rufous and thickly irrorated with fuscous, a black discoidal spot, curved, minutely waved postmedial line, and terminal series of minute lunules.

♀. Fore wing more rufous and less suffused with black except on costal half of antemedial area, inner medial area, and before costal part of subterminal line, a black patch in cell between orbicular and reniform.

Hab. Ceylon, 1 ♂, Pundaloya (*Green*), 1 ♂, Dickoya (*Green*), 1 ♂, 1 ♀ type, Maskeliya (*Pole*), 1 ♂. *Exp.* 24 millim.

5743. Erastroides fausta. (Plate CLXIII. fig. 25.)

Metachrostis fausta, Swinh. A. M. N. H. (7) xi. p. 506 (1903).

♀. Head and thorax ochreous yellow mixed with fuscous; tarsi banded with blackish; abdomen ochreous tinged with rufous and irrorated with fuscous, the crests blackish. Fore wing ochreous

yellow suffused with fuscous and purple to the medial line, with fuscous to postmedial line, and with black patch on apical area; subbasal line represented by a black striga from costa: antemedial line double, brown filled in with ochreous, very minutely waved and slightly curved; claviform represented by some whitish scales defined by black; orbicular small, round, with fuscous centre and ochreous annulus defined by black, some white scales on its inner side; reniform elliptical, defined by black with some fuscous in centre and white on outer edge; a sinuous blackish medial line; postmedial line double filled in with ochreous at costa, then with whitish, obliquely downcurved to vein 6, then obliquely incurved; the apical patch with some whitish points on costa; subterminal line just traceable on the apical patch and with two dark points on its inner side above inner margin; a terminal series of black points. Hind wing ochreous yellow, the basal area tinged with fuscous; a dark discoidal point and fine terminal line; the underside irrorated with fuscous, a small dark discoidal spot, curved minutely waved postmedial line, and terminal series of slight lunules.

Hab. Burma, Tenasserim, Tandona, 4000′, 1 ♀ type. *Exp.* 22 millim.

5744. Erastroides endomela, n. sp. (Plate CLXIII. fig. 25.)

♂. Head and thorax fuscous mixed with grey; tegulæ edged with whitish; abdomen grey tinged with brown and irrorated with fuscous, the crests blackish. Fore wing greenish grey tinged in parts with rufous and irrorated with black, the basal area suffused with blackish except towards inner margin, the medial area suffused with black below submedian fold; subbasal line black, curved, from costa to submedian fold; antemedial line black, double below submedian fold, minutely waved; claviform defined by black and white at extremity; orbicular and reniform with slight whitish annuli defined by black, the former round, the latter elliptical; a medial blackish bar from costa; postmedial line double filled in with whitish, oblique from costa to vein 6, then inwardly oblique and slightly bent outwards at submedian fold, some whitish points beyond it on costa; subterminal line hardly defined except by patches of dark suffusion before it below costa and at middle, where it is excurved; a terminal series of small black lunules; cilia whitish and black with a blackish line at middle. Hind wing brown with a terminal series of black striæ; cilia paler with a dark line through them; the underside white tinged with brown and irrorated with fuscous, a black discoidal point.

Hab. Burma, Karen Hills (*Fea*), 1 ♂ type. *Exp.* 20 millim.

5745. Erastroides mesomela, n. sp. (Plate CLXIII. fig. 27.)

♀. Head, thorax, and abdomen greyish tinged with rufous and mixed with black; fore tibiæ and tarsi black with pale rings; abdomen with the crests black. Fore wing greyish tinged with

rufous and irrorated with black, the medial and apical areas suffused with black; subbasal line represented by double black striæ from costa; antemedial line double, oblique, minutely waved; claviform slightly defined by black and white at extremity; orbicular and reniform with slight pale annuli defined by black, the former small, round, the latter elliptical; an indistinct black medial line, oblique from costa to median nervure, then waved; postmedial line double filled in with whitish and defined by whitish on outer side from discal fold to inner margin, interrupted by a black mark at discal fold, very minutely waved, excurved from below costa to vein 4, then obliquely incurved, some white points beyond it on costa; subterminal line diffused, whitish defined on inner side by black suffusion forming patches on costal area and at middle and lunules on inner area, excurved below vein 7 and at middle, and incurved to near postmedial line at discal and submedian folds; a terminal series of small black spots; cilia with a blackish line at middle and blackish tips. Hind wing reddish brown with a terminal series of small black lunules; cilia paler with a dark line at middle; the underside whitish tinged with rufous and irrorated with fuscous, a black discoidal spot and curved minutely waved postmedial line.

Ab. 1. Fore wing with hardly any black suffusion on medial and postmedial areas.

Hab. Ceylon, Maskeliya (*Mackwood, Pole*), 2 ♀ type. *Exp.* 26 millim.

5746. Erastroides curvifascia.

Ozarba curvifascia, Hmpsn. Ill. Het. B. M. viii. p. 76, pl. 145. f. 23 (1891); id. Moths Ind. ii. p. 303.

Head, thorax, and abdomen reddish brown mixed with fuscous; fore tibiæ and tarsi fuscous with pale rings; abdomen with the dorsal crests blackish. Fore wing olive-ochreous tinged with rufous, the antemedial costal area, the medial and apical areas suffused with fuscous; subbasal line represented by double blackish striæ from costa filled in with olive; antemedial line double filled in with olive, oblique, minutely waved; claviform faintly defined by black and whitish at extremity; orbicular and reniform with slight pale annuli defined by blackish, the former small, round, the latter elliptical; medial line represented by a blackish bar from costa and traces of an oblique sinuous line from lower angle of cell to inner margin; postmedial line double filled in with olive and slightly defined by whitish on outer side towards inner margin, excurved from below costa to vein 3, then incurved, some whitish points with slight black streaks between them beyond it on costa; subterminal line diffused, whitish, with more or less developed blackish marks before it on inner half, excurved below vein 7 and at middle; a terminal series of minute black lunules; cilia with a blackish line at middle. Hind wing fuscous brown; cilia greyish with a dark line near base; the underside whitish tinged with ochreous and irrorated with fuscous, a small black discoidal spot, minutely waved postmedial line angled outwards at discal fold, and terminal series of dark striæ.

Hab. Bombay, Kanara, Anshi (*Bell*), 1 ♂; Madras, Belgaum (*Watson*), 1 ♂, 1 ♀, Nilgiris (*Hampson*), 1 ♂ type; Burma, Thayetmyo (*Watson*), 1 ♀. *Exp.* 20–26 millim.

5747. Erastroides propera. (Plate CLXIII. fig. 28.)

Eustrotia propera, Grote, Papilio, ii. pp. 132, 184 (1882); Smith, Cat. Noct. N. Am. p. 311.

Head and thorax dark brown slightly mixed with grey; pectus and hind legs paler; tarsi black-brown ringed with white; abdomen ochreous white suffused with brown. Fore wing dark brown slightly tinged with grey to postmedial line and on costal area to subterminal line, the terminal area ochreous white tinged with rufous; antemedial line very indistinct, blackish defined on inner side by ochreous, oblique from costa to middle of cell, then minutely waved; claviform defined by ochreous and black at extremity; orbicular an ochreous point defined by diffused black and with oblique black striga above it from costa; reniform with brown centre and white annulus defined by black, oblique; postmedial line double filled in with white, the outer line indistinct, bent outwards below costa, excurved to vein 4, then incurved and slightly sinuous, some whitish points beyond it on costa; subterminal line indistinct, whitish, defined on inner side towards costa by the dark area and at middle by rufous suffusion, minutely dentate, angled inwards at discal fold and incurved below vein 3; a terminal series of slight black lunules; cilia fuscous black. Hind wing whitish tinged with brown; a terminal series of black striæ; cilia whitish with a fine dark line near base; the underside whitish irrorated with brown, a black discoidal point and curved minutely crenulate postmedial line.

Hab. U.S.A., Arizona, Yuma Co., 1 ♂, 1 ♀. *Exp.* 20 millim.

Genus LITHACODIA.

	Type.
Lithacodia, Hübn. Verz. p. 205 (1827)	*bellicula*.
Maliattha, Wlk. xxvii. 86 (1863)	*separata*.
Motama, Moore, Lep. Atk. p. 110 (1882)	*cidarioides*.
Anchiroe, Saalm. Lep. Madag. p. 350 (1891)	*flavofimbria*.
Hyelopsis, Hmpsn. Moths Ind. ii. p. 304 (1894)	*vidlis*.

Proboscis fully developed; palpi upturned the 2nd joint reaching to vertex of head and broadly fringed with scales in front, the 3rd moderate; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed chiefly with scales, the prothorax without crest, the mesothorax with slight paired crests, the metathorax with spreading crest; tibiæ moderately fringed with hair; abdomen with dorsal crests on basal segments, the crests on 3rd and 4th segments large. Fore wing with the apex rounded, the termen rather oblique towards tornus; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 typically from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Larva with the prolegs on 7th somite absent, on 8th rudimentary.

In some specimens of *L. fentoni* the areole is slight or quite obsolete.

Sect. I. Antennæ of male with fascicles of long cilia.

A. Fore wing with the postmedial line oblique from costa to vein 6 and incurved below vein 4 ..... *plumbata.*
B. Fore wing with the postmedial line strongly bent outwards below costa and oblique below vein 4 ..... *umbrina.*

5748. Lithacodia plumbata.

Acontia plumbata, Butl. Ill. Het. B. M. vii. p. 61, pl. 129. f. 4 (1889); Hmpsn. Moths Ind. ii. p. 305.
Marimatha freda, Swinh. Trans. Ent. Soc. 1891, p. 147.

Head and thorax ochreous tinged with rufous, the fore tarsi fuscous with pale rings; abdomen ochreous white irrorated with brown, the crests blackish. Fore wing ochreous suffused with rufous; a pink and fuscous fascia on costa from near base to the antemedial line, which is indistinct, double, minutely waved, excurved, with some pink and black scales on it in submedian fold; orbicular with its outer edge faintly defined by rufous, the reniform with its inner edge similarly defined; bases of veins 3, 4 with pink streaks; postmedial line double, black filled in with pink, oblique from costa to vein 6, slightly incurved at discal fold, inwardly oblique and minutely waved below vein 4, some blackish points

Fig. 148. —*Lithacodia plumbata*, ♂. ½.

beyond it on costa and veins 6, 5, 4 streaked with blackish; the terminal area pink irrorated by fuscous and defined on inner side by blackish representing the subterminal line, oblique from apex to discal fold when it is angled inwards and excurved at middle; a terminal series of black points; cilia pink and fuscous with a dark line at middle. Hind wing ochreous whitish suffused with fuscous; cilia ochreous with dark lines at middle and tips; the underside ochreous white irrorated with fuscous, a blackish discoidal spot, curved minutely waved postmedial line, diffused subterminal line, and fine terminal line.

Hab. Punjab, Dalhousie (*Harford*), 2 ♂, 1 ♀, Dharmsála (*Hocking*), 2 ♂, 6 ♀ type; ? Madras, Nilgiris (*Swinhoe*), 1 ♂ type *freda*. *Exp.* 26 millim.

5749. Lithacodia umbrina.

Acontia umbrina, Hmpsn. Ill. Het. B. M. viii. p. 74, pl. 145. f. 15 (1891); id. Moths Ind. ii. p. 306.

Head and thorax ochreous mixed with some rufous; abdomen

ochreous white irrorated with brown. Fore wing ochreous tinged with fiery rufous except on inner area, the costal area, median nervure and nervules, and terminal area with brownish suffusion; traces of an antemedial line, angled inwards in cell, inwardly oblique and rufous from cell to inner margin; a blackish point in middle of cell and slight discoidal lunule; a slight oblique rufous line from lower angle of cell to inner margin; postmedial line double, red-brown, strongly bent outwards below costa, then very minutely waved, excurved to vein 4, then oblique; a fine black terminal line. Hind wing grey suffused with brown; the underside whitish irrorated with brown.

Hab. Madras, Nilgiris (*Hampson*), 4 ♀ type; Travancore, Pirmád (*Mrs. Imray*), 1 ♂. *Exp.* 18–24 millim.

Sect. II. Antennæ of male minutely ciliated.

A. (*Maliattha*). Hind wing with veins 3, 4 stalked.

a. Fore wing with the medial area olive-green, somewhat triangular in shape and contrasting with the white on basal and postmedial areas ..... *synochitis*.

b. Fore wing with the medial area rufous and more or less triangular in shape, contrasting with the white on basal and postmedial areas.

a^1. Fore wing with black streaks defined by white on the veins beyond the cell ..... *separata*.

b^1. Fore wing without black streaks defined by white on the veins beyond the cell.

a^2. Fore wing with the postmedial line acutely angled outwards beyond the reniform ..... *arefacta*.

b^2. Fore wing with the postmedial line excurved beyond the reniform.

a^3. Fore wing with the postmedial line ending at tornus ..... *luteicosta*.

b^3. Fore wing with the postmedial line ending well before tornus ..... *flavigena*.

c. Fore wing with dark medial band contrasting with the pale basal and postmedial areas.

a^1. Fore wing with the medial band emitting a fork from below the cell to beyond the reniform.

a^2. Fore wing with the postmedial line single towards inner margin ..... *picata*.

b^2. Fore wing with the postmedial line double towards inner margin ..... *signifera*.

b^1. Fore wing with the medial band not emitting a fork from below the cell to beyond the reniform.

a^2. Fore wing with the basal and postmedial areas white ..... *blandula*.

b^2. Fore wing with the basal and postmedial areas ochreous white tinged with rufous ..... *batica*.

d. Fore wing with the medial area not darker and contrasting with the basal and postmedial areas.

a^1. Fore wing with the basal area pale, extending on costa to near apex and on inner margin to near middle, the area beyond it mostly dark.

a^2. Fore wing with the terminal area pale from below apex to inner margin ..... *caffristis*.

b^2. Fore wing with the whole terminal area dark... *vatis*.

b^1. Fore wing with the basal area not pale with oblique outer edge and contrasting with the postmedial area.
a^2. Fore wing with white band before the terminal line from below apex to vein 4 ..... *marginalis.*
b^2. Fore wing without white band before the terminal line from below apex to vein 4.
a^3. Fore wing with triangular white patch on postmedial part of costa.
a^4. Fore wing with the basal area yellow ..... *flavofimbria.*
b^4. Fore wing with the basal area black-brown . *melaleuca.*
b^3. Fore wing without triangular white patch on postmedial part of costa.
a^4. Fore wing with the reniform white and connected with some white marks on costa ..... *phya.*
b^4. Fore wing with the reniform not white.
a^5. Hind wing not yellow more or less suffused with red.
a^6. Fore wing not grey-green, with the claviform and reniform filled in with brown or red and the orbicular with black.
a^7. Fore wing not white, suffused with ochreous.
a^8. Fore wing olive-green suffused with brown and irrorated with black ..... *plumbitincta.*
b^8. Fore wing whitish, the basal, inner, and postmedial areas suffused with fuscous ..... *varicolora.*
b^7. Fore wing white suffused with ochreous ..... *albidula.*
b^6. Fore wing grey-green, the claviform and reniform filled in with brown or red, the orbicular with black.
a^7. Fore wing with the claviform and reniform filled in with ferruginous brown ..... *parvimacula.*
b^7. Fore wing with the claviform and reniform filled in with bright red . *concinnimacula*
b^5. Hind wing yellow more or less suffused with red.
a^6. Fore wing with wedge-shaped white subbasal patch above vein 1..... *scapha.*
b^6. Fore wing with curved white subbasal streak above vein 1 ..... *arcuilla.*
c^6. Fore wing without subbasal white mark above vein 1..... *metachrysa.*

5750. Lithacodia synochitis. (Plate CLXIII. fig. 29.)

Erastria synochitis, Grote & Rob. Trans. Am. Ent. Soc. i. p. 357 (186
Smith, Cat. Noct. N. Am. p. 310.

Head and thorax white mixed with fuscous brown, whiter behin with a small dark spot on metathorax; palpi and frons tinged wit red; tarsi blackish ringed with white; abdomen white tinged wit olive and irrorated with fuscous, the crests black. Fore wi white, the costal and postmedial areas irrorated with purplis

fuscous, the medial area, a patch beyond the cell, and the postmedial area from costa to vein 2 suffused with olive-green; a subbasal black point in cell: antemedial line very indistinct, double filled in with white from costa to median nervure, then inwardly oblique and forming the inner edge of the green area; orbicular a black point on a white spot; reniform purplish fuscous with white annulus, elliptical; postmedial line very indistinctly double filled in with white, bent outwards below costa, excurved and very minutely waved to vein 3, then bent inwards to lower angle of cell and oblique to inner margin, some whitish points beyond it on costa: subterminal line indistinct, white with slight black streaks before it below costa, angled inwards below costa and at discal and submedian folds, excurved below vein 7 and at middle; some blackish suffusion at apex; a terminal series of olive-green strigæ; cilia brownish white with a slight dark line through them. Hind wing white irrorated with brown especially on terminal area; cilia white with a brown line through them; the underside white irrorated with fuscous, the costal area tinged with red, a slight dark discoidal spot, slight postmedial line, excurved at discal fold, and terminal series of black strigæ.

Hab. Canada, Renfrew Co. (*Grote*), 1 ♂, Nova Scotia (*Redman*), 1 ♀; U.S.A., Massachusetts, Beverley (*Burg*), 5 ♂, 2 ♀, New York (*Doubleday, Grote, Packard*), 7 ♂, 5 ♀, C. States, Texas, 1 ♀. *Exp.* 20–22 millim.

5751. Lithacodia separata.

Maliattha separata, Wlk. xxvii. 86 (1863).
Bankia renalis, Moore, Lep. Atk. p. 142 (1882); Hmpsn. Moths Ind. ii. p. 305.

Head and thorax white mixed with brownish ochreous; palpi red-brown at sides except at tips; abdomen white suffused with ochreous and irrorated with brown, the crests blackish at tips.

Fig. 149.—*Lithacodia separata*, ♂.

Fore wing white, the medial and terminal areas brownish ochreous: the basal area tinged with ochreous and irrorated with dark brown; antemedial line blackish defined by white on inner side, inwardly oblique from middle of cell; orbicular absent: reniform narrow, elliptical, with black centre and white annulus slightly defined by black; postmedial line double filled in with white, oblique from costa to vein 6, then interrupted, outwardly oblique and slightly

sinuous from lower extremity of reniform to inner margin; some white points beyond it on costa; the veins beyond end of cell with blackish streaks defined by white; subterminal line white defined on inner side by wedge-shaped black-brown marks in the interspaces, angled inwards below costa and in discal and submedian folds and outwards at vein 7 and middle; a fine black terminal line with narrow ochreous white band before it and fine whitish line at base of cilia. Hind wing whitish suffused with brownish ochreous; the cilia whitish with fine dark lines near base and tips; the underside whitish irrorated with brown, the costal area tinged with reddish ochreous, a blackish discoidal spot, postmedial line excurved from below costa to vein 2, and terminal series of black striæ.

Hab. Punjab, Dharmsála (*Hocking*), 8 ♂, 1 ♀ type *renalis*; Madras, Belgaum (*Watson*), 1 ♂; Ceylon, Pundaloya (*Green*), 2 ♂; Burma, Shán States (*Bingham*), 2 ♀; Borneo, Sarawak (*Wallace*), 2 ♂ type; Loo-choo Is. (*Pryer*), 1 ♂; Java, Arjuno (*Doherty*), 1 ♂. *Exp.* 18–22 millim.

5752. Lithacodia arefacta. (Plate CLXIII. fig. 30.)

Acontia arefacta, Butl. A. M. N. H. (5) iv. p. 366 (1879).
Bankia basalis, Moore, Lep. Atk. p. 143 (1882); Hmpsn. Moths Ind. ii. p. 305.

Head and thorax white irrorated with ochreous brown; palpi, pectus, legs, and abdomen white irrorated and suffused with ochreous brown. Fore wing white irrorated with ochreous brown, the medial and terminal areas ochreous brown; antemedial line brown defined by white on inner side, inwardly oblique and slightly sinuous; orbicular absent; reniform blackish defined by white except on outer side, small, elliptical; postmedial line brown defined by white on outer side, double towards costa, oblique from costa to vein 6, then obsolescent and bent inwards to lower angle of cell, then outwardly oblique and slightly sinuous; some white points beyond it on costa; subterminal line white, angled outwards at vein 7 and excurved at middle, slightly angled inwards at discal and submedian folds; cilia white with a brown line through them. Hind wing whitish uniformly suffused with brown; cilia white with a brown line through them; the underside whitish irrorated and suffused with ochreous brown.

Hab. Japan, Nagasaki (*Leech*), 1 ♂, 1 ♀, Satsuma (*Leech*), 1 ♂, Yokohama (*Pryer*), 1 ♂, 1 ♀ type; C. China, Shanghai, 1 ♀ type *basalis*, Foo-chau (*Leech*), 1 ♂, Kiukiang (*Pryer*), 1 ♀. *Exp.* 20 millim.

5753. Lithacodia lativitta.

Bankia lativitta, Moore, P. Z. S. 1881, p. 373; id. Lep. Ceyl. iii. p. 56, pl. 150. f. 9; Hmpsn. Moths Ind. ii. p. 305.

Head and thorax white mixed with golden brown; palpi, pectus, legs, and abdomen whitish suffused with golden brown. Fore wing

with the basal area white irrorated with ochreous brown, the costa and rest of wing golden brown; antemedial line dark brown inwardly oblique and very minutely waved; reniform small, white, elliptical, with two black points on it; postmedial line blackish, double and filled in with white towards costa, oblique to vein 6, bent inwards from vein 5 to lower angle of cell, then single defined by white on outer side and oblique to tornus, some white and black points beyond it on costa; subterminal line whitish with slight dark spots beyond it between vein 5 and submedian fold, slightly angled inwards at discal fold; cilia white with dark brown line through them and dark brown tips. Hind wing whitish suffused with brown; a fine dark terminal line; cilia whitish at base, brown at tips; the underside white irrorated with brown, the costal area tinged with ochreous, a slight dark discoidal lunule, traces of a waved postmedial line from costa to vein 3, and terminal series of striæ.

Hab. Madras, Belgaum (*Watson*), 1 ♂, Nilgiris (*Hampson*), 1 ♂, 5 ♀ type, Palnis (*Campbell*), 1 ♀; Travancore, Pirmád (*Mrs. Imray*), 1 ♀; Ceylon, Pundaloya (*Green*), 1 ♂, 4 ♀. *Exp.* 20–28 millim.

*5754. Lithacodia ferrugina. (Plate CLXIII. fig. 31.)

Maliattha ferrugina, Turner, Tr. R. Soc. S. Austr. xxxii. p. 67 (1908).

♂. Head pale rufous; thorax grey with rufous patches on patagia and dorsum: fore tibiæ and tarsi banded with blackish; abdomen grey with the basal crest rufous, the others black tipped with white. Fore wing white irrorated with brown and with some fiery red at base, the medial area suffused with fiery red; an inwardly oblique, slightly waved blackish antemedial line defined by white on inner side; reniform small, white, figure-of-8-shaped, with black spots in upper and lower parts; postmedial line blackish, double towards costa, oblique to vein 6, excurved to vein 4, then bent inwards to near lower edge of reniform and outwardly oblique to inner margin; the postmedial area brownish except towards costa and inner margin: a slight white subterminal line excurved below vein 7 and at middle; terminal area reddish; a slight dark terminal line; cilia reddish at base, greyish at tips. Hind wing whitish tinged with brown; the underside thickly irrorated with brown, traces of a discoidal spot and curved postmedial line.

Hab. Queensland, Kuranda (*Dodd*), type † ♂ in Coll. Turner. *Exp.* 20 millim.

5755. Lithacodia picata.

Acontia picata, Butl. Ill. Het. B. M. vii. p. 62, pl. 129. f. 2 (1889); Hmpsn. Moths Ind. ii. p. 305.

Head and thorax pure white; palpi, pectus, and legs suffused with golden brown, the tarsi dark brown ringed with white; abdomen white mixed with golden brown, the crests on segments

3, 4 black. Fore wing pure white; a triangular dark brown patch on base of costa followed by a point; antemedial line black, angled outwards in cell and above vein 1, followed by a golden-brown band emitting a fork below the cell curving upwards beyond the cell to vein 6; a black point at upper angle of cell and small spot at lower angle; a postmedial dark point on costa; terminal area golden brown except towards tornus; some white points on costa towards apex; subterminal line whitish, excurved below vein 7 and at middle and angled inwards at discal fold, some small wedge-shaped dark marks before it below costa and at middle; cilia dark brown mixed with some grey. Hind wing whitish tinged with ochreous brown; cilia white mixed with ochreous white at tips; the underside white tinged with ochreous and irrorated with brown, a small black discoidal spot, indistinct waved postmedial line, and fine terminal line.

Hab. Madagascar, Forêt d'Ambre (*Meade-Waldo*), 1 ♂; Mauritius, 1 ♂, 1 ♀; Punjab, Simla (*Harford*), 3 ♀, Dharmsála (*Hocking*), 7 ♂, 2 ♀ type; Sikhim (*Dudgeon*), 1 ♀. *Exp.* 18–22 millim.

5756. Lithacodia signifera.

Acontia signifera, Wlk. xii. 793 (1857); Moore, Lep. Ceyl. iii. p. 47, pl. 150. f. 4; Hmpsn. Moths Ind. ii. p. 304.
Acontia subfixa, Wlk. xxxv. 1964 (1866).

Head and thorax white mixed with some golden brown; palpi with a brown band on 2nd joint; fore tibiæ and tarsi banded with brown; abdomen white suffused with golden brown, the crests on medial segments black. Fore wing white; the basal area with two dark marks on costa followed by a point, a subbasal black point in cell; antemedial line black, slightly sinuous, followed by a golden-brown band emitting a fork below the cell to beyond the cell at vein 6; two black discoidal points with a blackish spot beyond them before the postmedial line, which is fine, double filled in with white, slightly bent outwards below costa, then very minutely waved, excurved to vein 4, then incurved, some blackish and white points beyond it on costa; terminal area golden brown except towards tornus; subterminal line fine, white with small wedge-shaped black marks before it below costa and at middle, slightly angled outwards at veins 7, 6 and excurved at middle; a terminal series of black striæ defined on inner side by white striæ; cilia brownish mixed with white. Hind wing whitish tinged with golden brown especially towards termen; a fine dark terminal line; cilia white tinged with golden brown and with a dark line through them; the underside white, the costal and terminal areas irrorated with brown, a slight dark discoidal lunule, postmedial bar from costa, and terminal series of minute black lunules.

Hab. Japan, Tokio (*Maries*), 1 ♂, Yokohama (*Pryer*, *Mann*, *Siebold*), 1 ♂, 3 ♀; Corea, Gensan (*Ito*), 2 ♂; C. China, Shanghai

(*Fortune, Calpin*), 3 ♂, 1 ♀ type *subfixa*, Kiukiang (*Pryer*), 1 ♂, 1 ♀, Ichang (*Mrs. Pratt, Hobson*), 3 ♀; Kashmir, Rajaori (*Leech*), 1 ♂, 1 ♀; Punjab, Kulu (*Pilcher*), 2 ♂, Dharmsála (*Hocking*), 3 ♂, 2 ♀, Allahabad, 1 ♂, Manpuri, 1 ♀; N. India (*James*), 1 ♀ type; Bengal, Calcutta, 1 ♀; Madras, Nilgiris (*Hampson*), 1 ♂, 1 ♀; Ceylon (*Nietner, Mackwood*), 3 ♂, 6 ♀; Burma, Thayetmyo (*Watson*), 1 ♀, Rangoon, 1 ♀; Andamans (*Rogers*), 2 ♀; Penang (*Curator*), 1 ♀; N. Australia, Port Darwin (*A. J. Walker*), 1 ♀, Queensland, Cairns, 1 ♂, Geraldton, 1 ♀. *Exp.* 16–22 millim.

5757. Lithacodia blandula.

Erastria blandula, Guen. Maillard's Réunion, Lép. p. 38 (1863); Saalm. Lep. Madag. p. 352, f. 167.
Anthophila i-græcum, Mab. CR. Ent. Soc. Belg. xxv. p. lxi (1881).
Tarache perta, Schaus, Lep. S. Leone, p. 36, pl. iii. f. 10 (1893).

Head and thorax white mixed with some brown, especially on the tegulæ; palpi brownish at base and with black band on 2nd joint; antennæ brown ringed with white; tibiæ and tarsi with blackish bands; abdomen white mixed with some brown, the crests tipped with black. Fore wing pure white, the basal part of costa yellow-brown with a subbasal black striga from costa defined by white on outer side and black point in cell nearer base; antemedial line black, oblique, slightly waved, with a broad yellow-brown band beyond it slightly irrorated with black; two minute black streaks at angles of cell; a brown patch irrorated with black beyond the cell before the postmedial line, which is bent outwards and almost obsolete below costa, then double, blackish filled in with white, minutely waved, excurved to vein 3, then bent inwards to lower angle of cell, single and defining the outer edge of medial band, oblique and sinuous to inner margin; postmedial area yellow-brown except towards inner margin, irrorated with black and with some white points on costa; subterminal line white, defined on inner side by diffused somewhat dentate black marks, angled inwards below costa and at discal and submedian folds, excurved below vein 7 and at middle; terminal area reddish; cilia yellowish brown and black with a blackish line through them. Hind wing whitish tinged with brown especially towards termen; cilia ochreous white with a diffused dark line through them; the underside white irrorated with fuscous especially on costal area, a dark discoidal spot, diffused rather maculate postmedial line, angled outwards at discal fold, then incurved, and traces of diffused subterminal line from costa to submedian fold.

Hab. Sierra Leone (*Clements*), 1 ♂, 2 ♀; Gold Coast, Kumasi (*Whiteside*), 1 ♀; Abyssinia, Atbara R. (*Gerrard*), 1 ♂, 1 ♀; Br. E. Africa, Teita (*Jackson*), 1 ♀; Mashonaland, Umtali (*Marshall*), 2 ♀; Natal, Malvern (*Marshall*), 1 ♂, Durban (*Gooch, Leigh, Jeffery*), 2 ♂, 2 ♀; Madagascar, type† *i-græcum* in Coll. Mabille; Réunion. *Exp.* 16–20 millim.

5758. **Lithacodia bætica.** (Plate CLXIII. fig. 32.)

Taraehe bætica, Swinh. Trans. Ent. Soc. 1890, p. 224; Hmpsn. Moths Ind. ii. p. 305.

Head, thorax, and abdomen ochreous white tinged with rufous, the last with the crests tipped with black. Fore wing ochreous white tinged with rufous; a patch of rufous suffusion on base of costa crossed by a pale subbasal striga; antemedial line blackish defined on inner side by whitish, oblique from costa to subcostal nervure, angled outwards in submedian interspace and inwards on vein 1, a broad oblique band of rufous and dark brown suffusion beyond it; orbicular absent; reniform an elliptical whitish mark with black points on it at the angles of cell: postmedial line indistinctly double filled in with whitish, slightly bent outwards below costa, oblique to vein 4 and slightly bent outwards at vein 1, some whitish points beyond it on costa; terminal area suffused with dark brown and greyish, the subterminal line slight, whitish defined on inner side by minute dentate black marks, excurved below vein 7 and slightly at middle; a terminal series of black points. Hind wing greyish suffused with red-brown; cilia pale with a dark line through them; the underside yellowish irrorated with red-brown, a rather diffused curved postmedial line and diffused subterminal line.

Hab. Sikhim, 1 ♀; Burma, Rangoon, 2 ♂, 1 ♀ type. *Exp.* ♂ 14, ♀ 18 millim.

5759. **Lithacodia caffristis**, n. sp. (Plate CLXIV. fig. 1.)

Maliattha vialis, Hmpsn. Ann. S. Afr. Mus. ii. p. 377 (nec Moore).

♀. Head and thorax ochreous white; palpi with some black scales; fore tibiæ and tarsi banded with black; abdomen ochreous white irrorated with fuscous, the crests tipped with black. Fore wing whitish tinged with ochreous and slightly irrorated with brown especially on costa; the terminal area grey-brown obliquely from apex to inner margin before middle, defined on inner side by some black scales and leaving an ochreous semi-elliptical patch on termen and another patch on inner area beyond the postmedial line, which is indistinctly double filled in with white, bent outwards below costa and strongly incurved below vein 4, below which there is a black mark below it; a terminal series of black points; cilia pinkish and fuscous with a black line through them and black patches at apex and middle. Hind wing ochreous white slightly irrorated with brown, the apex suffused with brown: traces of a sinuous postmedial line; a fine black terminal line; the underside irrorated with black, a blackish discoidal point, sinuous postmedial line, and rather punctiform terminal line.

Hab. Cape Colony, Transkei (*Miss F. Barratt*). 1 ♀ type. *Exp.* 26 millim.

5760. Lithacodia vialis.

Acontia vialis, Moore, Lep. Atk. p. 135 (1882); Hmpsn. Moths Ind. ii. p. 304.
Thalpochares bella, Staud. Stett. Ent. Zeit. xlix. p. 264 (1888); id. Rom. Mém. vi. p. 559. pl. xi. f. 1; id. Cat. Lep. pal. p. 230.

Head and thorax white tinged with reddish brown, the antennæ with fuscous; palpi fuscous; fore tibiæ fuscous ringed with white; abdomen white irrorated with brown, the crests black. Fore wing with the costal area to near apex and the inner area to before middle whitish, the costa tinged with dark brown, the end of cell with rufous, the rest of wing blackish with a cupreous gloss and mixed with purplish grey, the termen with whitish patches below apex, at middle, and above tornus; subbasal and antemedial lines with slight black points on costa, the latter then very faint, whitish and oblique to median nervure, then bounding the dark area, black defined by white on inner side and inwardly oblique, a black point before it in cell; minute black points in and beyond lower angle of cell from which to postmedial line there are slight white streaks on veins 5 to 3; postmedial line whitish on costal area, then double, black filled in with white, bent outwards below costa, incurved at discal fold and below vein 4 and angled inwards below vein 3 and at submedian fold; subterminal line slight, whitish defined on inner side by black suffusion, angled outwards at veins 7, 6, 4, 3 and inwards at discal and submedian folds; a terminal series of black striæ; cilia purplish grey mixed with fuscous. Hind wing ochreous whitish tinged with brown, a fine dark terminal line; cilia ochreous white with a slight dark line through them and blackish tips; the underside ochreous white irrorated with fuscous, a small discoidal spot and curved postmedial line.

Ab. 1. *bella*. Fore wing with the terminal area much redder.

Ab. 2. Hind wing dark brown with terminal ochreous white band.

Hab. E. Siberia, Ussuri; Japan, Oiwake (*Pryer*), 1 ♂, Yokohama (*Pryer*), 3 ♂, 3 ♀; W. China, Chow-pin-sa, 1 ♀, Moupin (*Krichel-dorf*), 1 ♀; Punjab, 1 ♀ type, Dharmsála (*Hocking*), 3 ♂, 6 ♀; Sikhim (*Pilcher*), 1 ♂; Assam, Khásis; Pulo Laut (*Doherty*), 1 ♂. *Exp.* 18–22 millim.

5761. Lithacodia marginalis.

Acontia marginalis, Wlk. xxxiii. 782 (1865); Swinh. Cat. Het. Mus. Oxon. ii. pl. i. f. 9.
Maliattha stolasa, Swinh. A. M. N. H. (7) xv. p. 154 (1905).

Head and thorax pale ochreous suffused with rufous; palpi brown except at tips; fore tibiæ and the tarsi fuscous ringed with white; abdomen ochreous white mixed with dark brown, the crests blackish towards tips. Fore wing ochreous white suffused with bright rufous especially on costal area and terminal half; antemedial line rufous defined on inner side by whitish, inwardly oblique below submedian fold; two black points at the angles of

cell on a faint pale mark; traces of a curved rufous medial line; postmedial line blackish defined on inner side by white towards costa and on outer side below submedian fold, oblique from costa to vein 6, slightly angled inwards at discal fold and oblique below vein 4; some black and white striæ on costa towards apex; a faint oblique blackish shade from apex to postmedial line at vein 6; subterminal line absent; a fine brown terminal line with white band before it from below apex to vein 4; cilia brown mixed with whitish and with a series of dark striæ at middle. Hind wing reddish brown; cilia whitish with a dark line through them from apex to submedian fold; the underside ochreous white irrorated with fuscous, a blackish discoidal spot, rather diffused curved postmedial line, and fine black terminal line.

Hab. Sikhim (*Dudgeon*), 1 ♀; Assam, Khásis, 2 ♀ type *stolasa*; Madras, Cuddapah (*Campbell*), 1 ♂; Ceylon, Pundaloya (*Green*), 1 ♂; Borneo, Sarawak (*Wallace*), 1 ♀; Pulo Laut (*Doherty*), 1 ♀; Java, Arjuno (*Doherty*), 1 ♂. *Exp.* 20–24 millim.

5762. Lithacodia flavofimbria. (Plate CLXIV. fig. 2.)

Anchiroe flavofimbria, Saalm. Lep. Madag. p. 350, f. 231 (1891).

♂. Head and thorax yellow; palpi, lower part of frons, antennæ, shoulders, and fore legs rufous, the fore tarsi fuscous ringed with white; abdomen yellow irrorated with brown, the crest on 3rd segment rufous. Fore wing with the basal area, except the costa, yellow, the rest of wing rufous, slightly mixed with yellow; antemedial line pure white, oblique from costa to submedian fold, then slightly incurved; postmedial line pure white, oblique from costa to vein 6, then somewhat inwardly oblique and obsolescent to submedian fold, a triangular white patch beyond it on costal area and some white points on costa towards apex where there is a blackish patch; cilia rufous with a fine pale line at base. Hind wing yellow, slightly irrorated with brown; the underside with the costal area suffused with rufous to the indistinct curved postmedial line, a slight discoidal point.

Hab. Madagascar, Betsileo (*Cowan*), 1 ♂. *Exp.* 16 millim.

5763. Lithacodia melaleuca, n. sp. (Plate CLXIV. fig. 3.)

Head and thorax black-brown with a leaden-grey gloss; pectus and legs grey and fuscous, the tarsi ringed with white; abdomen fuscous mixed with some whitish, the crests black. Fore wing black-brown with a leaden grey gloss and tinged in parts with cupreous; subbasal line represented by a slight brownish striga from costa: antemedial line indistinct, black defined on inner side by some brown scales, erect, waved; orbicular and reniform incompletely defined by black, the former round, the latter constricted at middle, its upper part confluent with a large triangular pure white patch on costa; postmedial line indistinct, double, arising from apex of costal patch, excurved to submedian fold and with whitish and rufous patch beyond it on inner area; two white points on costa towards apex; an indistinct dentate black sub-

terminal line, incurved at discal and and submedian folds; a terminal series of small black lunules. Hind wing fuscous brown, with a cupreous gloss; a terminal series of black striæ; cilia with a whitish line at base followed by a dark line. Underside of fore wing with the costal patch reddish ochreous, the costal area before middle and the terminal area tinged with reddish ochreous; hind wing whitish thickly irrorated with fuscous brown, the costal area tinged with rufous, a slight discoidal lunule, indistinct curved postmedial line, and terminal series of small black lunules.

Hab. C. China, Chusan Is. (*J. J. Walker*), 1 ♀ type, Ning-po, 1 ♂, Chang-yang (*Pratt*), 1 ♀. *Exp.* 24–26 millim.

5764. Lithacodia phya.

Acontia phya, Druce, Biol. Centr.-Am., Het. i. p. 307, pl. 28. f. 20 (1889).

♂. Head and tegulæ dark brown, with a few whitish scales; thorax ochreous white; fore and mid legs brown, the tarsi ringed with white; abdomen ochreous white with brown segmental lines, the crests black. Fore wing purplish grey irrorated with black; a large white patch on basal area from cell to inner margin; antemedial line black, angled outwards below costa, then obliquely excurved; claviform a rounded black spot with some pale scales in centre; orbicular brownish white defined by black, minute, round; reniform a quadrate white patch defined by black except above and with some brown scales in centre; a diffused oblique waved black line from lower angle of cell to inner margin; some red scales on medial part of inner margin; postmedial line double filled in with white tinged with red except towards costa, bent outwards below costa, then minutely waved, incurved below vein 4, some small white spots beyond it on costa; subterminal line represented by a series of dentate black marks with red streaks from them to termen, angled outwards at vein 7 and excurved at middle; a terminal series of minute black lunules; cilia brown and grey with some red scales. Hind wing white irrorated with brown, the terminal area suffused with brown; a fine dark terminal line; cilia whitish with a brown line through them; the underside yellowish white irrorated with brown, a slight discoidal spot and traces of minutely waved postmedial and subterminal lines.

Hab. Mexico, Cuernavaca (*H. H. Smith*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 18 millim.

5765. Lithacodia plumbitincta. (Plate CLXIV. fig. 4.)

Maliattha plumbitincta, Hmpsn. J. Bomb. Soc. xiv. p. 205 (1902).

Head and thorax olive-yellow; palpi blackish; antennæ black except basal joint; pectus and legs blackish, the tarsi ringed with white; abdomen whitish mixed with fuscous, the crests black. Fore wing olive-green, the medial area and postmedial area from costa to vein 2 suffused with brown and irrorated with black; subbasal line blackish, oblique, from costa to submedian fold, some silvery blue

before it; antemedial line indistinct, blackish, with some silvery blue before it on costal half and on inner half defined by white on inner side, angled outwards in submedian fold and inwards on vein 1; reniform an obscure silvery blue lunule, the veins from cell to postmedial line streaked with silvery blue; postmedial line double, black filled in with silvery blue from costa to vein 2, then defined by white on outer side, bent outwards below costa, then dentate, incurved below vein 4; subterminal line represented by a silvery blue bar from costa and patches at discal and submedian folds with diffused black patches before it below costa and at middle, excurved below vein 7 and at middle; cilia black-brown with some silvery blue scales at base and tips. Hind wing white, tinged with fuscous especially on inner area; a terminal series of black striæ; cilia whitish tinged with fuscous at tips; the underside ochreous white irrorated with fuscous, a small dark discoidal spot and indistinct curved postmedial line.

Hab. Sikhim Tibet, Yatung (*Hobson*), 2 ♂, 4 ♀ type. *Exp.* 24–30 millim.

5766. Lithacodia varicolora. (Plate CLXIV. fig. 5.)

Maliattha varicolora, Hmpsn. Ann. S. Afr. Mus. ii. p. 377 (1902).

Head and thorax grey slightly tinged with ochreous and mixed with fuscous; palpi blackish; fore tibiæ and tarsi blackish ringed with white; abdomen ochreous white mixed with fuscous. Fore wing whitish, the basal and inner areas suffused and irrorated with purplish fuscous, the rest of medial area tinged with pink with some olive-yellow scales on disk, the terminal area greenish; subbasal line represented by a black striga from costa; antemedial line indistinctly double filled in with whitish, oblique from costa to submedian fold where it is crossed by a slight black streak; orbicular and reniform with faint olive annuli, the former round, the latter elliptical with black point in lower part; traces of an incurved line from lower angle of cell to inner margin; postmedial line indistinct, double, bent outwards below costa, excurved to vein 4, then incurved and filled in with white; subterminal line indistinct, formed by white scales, strongly defined on inner side by dark brown suffusion, excurved below vein 7 and at middle and angled inwards at vein 2 to near postmedial line; the terminal area with dark irroration; a terminal series of blackish striæ; cilia fuscous and white with a dark line through them and dark patch at middle. Hind wing whitish suffused with brown; a fine dark terminal line; cilia whitish with a dark line at middle; the underside ochreous white irrorated with brown, a dark discoidal spot, rather diffused curved minutely waved postmedial line, and terminal series of slight dark lunules.

Ab. 1. Fore wing with the medial area irrorated with fuscous and not tinged with pink, the terminal area not green.

Hab. Mashonaland (*Dobbie*), 1 ♂; Transvaal (*Cholmley*), 2 ♂, 1 ♀; Natal, Karkloof (*Marshall*), 1 ♀ type; Cape Colony, Transkei (*Miss F. Barrett*), 2 ♂, 1 ♀. *Exp.* 22–24 millim.

5767. Lithacodia albidula. (Plate CLXIV. fig. 6.)

Erastria albidula, Guen. Noct. ii. p. 230 (1852); Smith, Cat. Noct. N. Am. p. 309.
Nonagria intractabilis, Wlk. Can. Nat. & Geol. v. p. 252 (1860).
Conchylis cretiferana, Wlk. xxviii. 359 (1863).

Head and thorax white, the antennæ and tegulæ tinged with ochreous; palpi with the 2nd and 3rd joints blackish at sides except at tips; legs tinged with ochreous; abdomen white. Fore wing white suffused with pale reddish ochreous and slightly irrorated with fuscous; a very indistinct slightly sinuous reddish ochreous antemedial line; orbicular and reniform with faint white annuli, the former small, round; postmedial line white defined on inner side by reddish ochreous suffusion, bent outwards below costa, then minutely waved, excurved to vein 4, then incurved; faint traces of a whitish subterminal line: a terminal series of slight brownish striæ. Hind wing white slightly tinged with ochreous; a fine ochreous terminal line and fine line near base of cilia; the underside white irrorated with brown, the costal area tinged with reddish ochreous, a black discoidal point.

Hab. Newfoundland, Doyles Cadroy Valley (*Maj. Beddek*), 1 ♂; Canada, Nova Scotia (*Redman*), 1 ♂, 2 ♀ type *cretiferana*; U.S.A., New Hampshire, White Mts., 1 ♂, Massachusetts, Buffalo, 1 ♂, 1 ♀, New York (*Doubleday, Packard*), 4 ♂, 3 ♀, California (*Walsingham*), 1 ♂, 2 ♀. *Exp.* 22–30 millim.

5768. Lithacodia parvimacula. (Plate CLXIV. fig. 7.)

Eustrotia parvimacula, Grote, N. Am. Ent. i. p. 67 (1880); Smith, Cat. Noct. N. Am. p. 310.

♂. Head and thorax pale blue-green mixed with some blackish brown and a few red scales; palpi whitish mixed with fuscous; pectus and legs white mixed with brown, the tarsi black ringed with white; abdomen white irrorated with brown. Fore wing pale blue-green irrorated with a few red scales, the scales slightly pencilled with white; a black point at base of costa; subbasal line blackish, waved, from costa to submedian fold; antemedial line indistinctly double filled in with whitish, oblique, waved; claviform a small round ferruginous brown spot well separated from the antemedial line; orbicular black with white annulus, oblique elliptical and connected with a black bar from costa; reniform with ferruginous brown centre and white annulus incompletely defined by black, round; a slight medial striga from costa and sinuous line from cell to inner margin; postmedial line indistinctly double filled in with white, bent outwards below costa, then minutely waved, incurved below vein 4, some white points with fuscous between them beyond it on costa; subterminal line white with some fuscous before and beyond it on costal area, then defined on inner side by slight dentate black marks, excurved below vein 7 and at middle; a terminal series of small black lunules; cilia

with a slight fuscous line through them. Hind wing whitish suffused and irrorated with brown, a small discoidal spot, indistinct curved postmedial line, and fine black terminal line; cilia white with a slight brown line through them; the underside with the discoidal spot distinct, the postmedial line minutely waved, a terminal series of small black lunules.

Hab. U.S.A., Texas (*Belfrage*), 1 ♂ type. *Exp.* 24 millim.

5769. Lithacodia concinnimacula. (Plate CLXIV. fig. 8.)

Leptosia concinnimacula, Guen. Noct. ii. p. 238. pl. x. f. 10 (1852); Smith, Cat. Noct. N. Am. p. 310.

Head and thorax blue-green mixed with white; palpi, pectus, and legs white and blackish, the tarsi black ringed with white; abdomen whitish mixed with brown, the crests tipped with black. Fore wing blue-green mixed with some white, waved, from costa to submedian fold, a black point before it on costa; antemedial line white, rather oblique, waved, with black marks before and beyond it on costa and some red scales before it in cell; claviform a round red spot with white annulus, separated from antemedial line; orbicular and reniform round with white annuli, the former with black centre and black bar above it from costa, the latter with red centre; a few red and black scales below end of cell; postmedial line white defined on inner side by a few black scales on inner half, bent outwards below costa, then slightly dentate, incurved below vein 4, with alternating black and white marks beyond it on costa; subterminal line white with black and reddish patch before and beyond it on costa, then defined on inner side by slight dentate red marks with a few black scales on them, excurved below vein 7 and at middle; a terminal series of small black lunules defined by white on inner side; cilia grey-green with slight white line at middle and some blackish scales at tips. Hind wing whitish suffused with brown; a dark terminal line; cilia white with a dark line near base; the underside white irrorated with brown, a black discoidal spot, indistinct sinuous postmedial line, and terminal series of small black lunules.

Hab. Canada, Nova Scotia (*Redman*), 3 ♀; U.S.A., Eastern States and west to the Rocky Mts., Massachusetts, Beverley (*Bury*), 3 ♀, New York (*Doubleday*, *Grote*), 2 ♂, 1 ♀ type, Pennsylvania, 1 ♀. *Exp.* 24–26 millim.

5770. Lithacodia scapha.

Anthophila scapha, Saalm. Lep. Madag. p. 363, f. 236 (1891).

♂. Head and thorax deep purplish red; palpi white in front at base; pectus and tibiæ with some ochreous white, the tarsi ringed with white; abdomen brown mixed with purplish red, the crest on 3rd segment deep purplish red. Fore wing brown mixed with some grey and largely suffused with purplish red; a golden copper streak

below base of costa: a wedge-shaped silvery white patch at base of submedian inter-space; traces of a pale antemedial line, oblique from costa to median nervure, then erect; an oblique pale pink bar at end of cell from costa to postmedial line at vein 2 with a black striga on it at lower angle of cell representing the reniform and a small grey fiery red mark beyond it at middle; postmedial line brown slightly defined by white on inner side, bent outwards below costa, oblique to vein 4, then incurved and again excurved to inner margin, some white points beyond it on costa; a coppery red patch at apex; subterminal line slight, whitish, excurved, angled inwards in submedian fold, with silvery purple patches before it at discal fold and beyond it at submedian fold; cilia deep red tinged with purple at base. Hind wing fiery red, paler at base; cilia purplish with a fine white line at base; the underside yellowish, the costal and terminal areas irrorated with red, a small discoidal spot and curved postmedial line.

Hab. Madagascar, Betsileo (*Cowan*), 1 ♂. *Exp.* 20 millim.

5771. Lithacodia armilla.

Anthophila armilla, Saalm. Lep. Madag. p. 361. f. 238 (1891).

♂. Head and thorax brown tinged with purple and mixed with grey; palpi purplish red, whitish in front at base; antennæ red; pectus and legs rufous, the tarsi slightly ringed with white; abdomen greyish brown, the crest on 3rd segment purplish red. Fore wing with the costal area to near apex and the terminal area except at apex yellow suffused with purplish red, the basal inner area, the medial area below the cell, and an oblique fascia from apex to lower angle of cell dark brown; antemedial line represented by an oblique white band from origin of vein 2 to vein 1 along which it is bent inwards to near base; reniform small, white with black centres to upper and lower parts, figure-of-eight-shaped; postmedial line blackish slightly defined by white on inner side, excurved below costa and at middle, incurved at discal fold and below vein 3, some white points beyond it on costa; the termen purplish and white except towards apex, expanding into patches at discal and submedian folds; cilia purplish red. Hind wing purplish red, the costal area yellow to beyond middle; the underside uniform red.

Ab. 1. Hind wing golden yellow, the terminal area suffused with red; the underside with the costal area suffused with red, the termen irrorated with red, a slight discoidal point and punctiform postmedial line from costa to vein 3, excurved below costa.

Hab. Madagascar, Betsileo (*Cowan*), 2 ♂. *Exp.* 22 millim.

5772. Lithacodia metachrysa, n. sp. (Plate CLXIV. fig. 9.)

♂. Head, thorax, and abdomen yellowish suffused with rufous, tarsi blackish ringed with yellowish. Fore wing yellowish suffused and irrorated with rufous, the medial area suffused with darker brown; subbasal line represented by a blackish point on costa, the

antemedial line by two blackish points on costa; orbicular and reniform with pinkish annuli faintly defined by brown, the former round, the latter elliptical, some pink and white beyond its lower extremity; postmedial line indistinctly double filled in with whitish, excurved and very minutely waved from below costa to vein 4, then bent inwards to below angle of cell, some white beyond it on costal area and a whitish patch on inner area, some slight whitish points beyond it on costa; subterminal line ill-defined, whitish, defined on inner side by a curved dark brown patch from costa to vein 6, then slightly by dark brown, excurved below vein 7 and at middle and angled inwards in discal fold; a terminal series of black striæ; cilia red-brown mixed with yellowish. Hind wing yellow tinged with rufous; a fine brown terminal line; cilia yellow with a rufous line through them; the underside yellowish white irrorated with rufous, a black discoidal point and traces of a curved minutely waved postmedial line.

Hab. Madagascar, Fianarantsoa (*Cowan*), 1 ♂ type. *Exp.* 24 millim.

B. (*Lithacodia*). Hind wing with veins 3, 4 from the cell.
- *a*. Fore wing with the reniform white, attenuated above and dilated below.
  - a^1. Fore wing with the postmedial line outwardly oblique, very slightly excurved beyond the reniform ..... *micromelæa.*
  - b^1. Fore wing with the postmedial line bent outwards below costa and incurved below vein 4.
    - a^2. Fore wing with the orbicular absent.
      - a^3. Hind wing yellowish white ..... *mandarina.*
      - b^3. Hind wing dark brown ..... *fentoni.*
    - b^2. Fore wing with minute white orbicular ..... *albopunctalis.*
- *b*. Fore wing with the reniform not attenuated above and dilated below.
  - a^1. Fore wing with the terminal area suffused with cupreous red.
    - a^2. Fore wing with the postmedial line excurved beyond the reniform and angled inwards in submedian fold ..... *bellicula.*
    - b^2. Fore wing with the postmedial line confluent with the upper and lower extremities of the bar-shaped reniform and angled outwards beyond it. *cuprea.*
  - b^1. Fore wing with the terminal area not suffused with cupreous red.
    - a^2. Fore wing with more or less green coloration.
      - a^3. Fore wing with scarlet spots on basal and postmedial areas..... *mella.*
      - b^3. Fore wing without scarlet spots on basal and postmedial areas.
        - a^4. Fore wing with white spot beyond the reniform *chloromixta.*
        - b^4. Fore wing without white spot beyond the reniform.
          - a^5. Fore wing with black patches at base of costa and middle of terminal area ..... *atrinotata.*
          - b^5. Fore wing without black patches at base of costa and middle of terminal area.
            - a^6. Fore wing with the orbicular absent. ..... *crotopha.*

b^6. Fore wing with the orbicular defined by a slight oblique white striga on its outer edge *chlorophila*.
c^6. Fore wing with the orbicular completely defined, round.
a^7. Fore wing with white centre to orbicular *glauca*.
b^7. Fore wing without white centre to orbicular
a^8. Fore wing with the discal area rufous..... *bryistis*.
b^8. Fore wing with the discal area not rufous.
a^9. Fore wing with the medial area blackish.
a^{10}. Fore wing with the terminal area blackish ..... *cupreofusca*.
b^{10}. Fore wing with the terminal area mostly green.
a^{11}. Fore wing with the antemedial line oblique, sinuous.
a^{12}. Fore wing without white on inner area beyond postmedial line ..... *formosana*.
b^{12}. Fore wing with some white on inner area beyond postmedial line..... *musta*.
b^{11}. Fore wing with the antemedial line erect, slightly waved ..... *cidarioides*.
b^9. Fore wing with the medial area golden green with black between orbicular and reniform ..... *aurata*.
b^2. Fore wing without any green coloration.
a^3. Fore wing golden yellow suffused with rufous.
a^4. Fore wing with the orbicular round and separate from the claviform ..... *decorata*.
b^4. Fore wing with the orbicular produced at lower extremity and confluent with the claviform ... *dorata*.
b^3. Fore wing not golden green suffused with rufous.
a^4. Fore wing with the ground-colour pink.
a^5. Hind wing pink..... *titanica*.
b^5. Hind wing brown ..... *rosacea*.
b^4. Fore wing with the ground-colour not pink.
a^5. Fore wing with oblique pinkish white fascia from costa at antemedial line to below the reniform ..... *carneola*.
b^5. Fore wing without oblique pinkish white fascia from costa at antemedial line to below the reniform.
a^6. Fore wing with the terminal area tinged with pink..... *apicosa*.
b^6. Fore wing with the terminal area not tinged with pink.
a^7. Fore wing with triangular red mark on termen at discal fold ..... *minuta*.
b^7. Fore wing with lunulate black patch on termen and cilia at discal fold ..... *editha*.
c^7. Fore wing without black patch on termen and cilia at discal fold.
a^8. Fore wing with large quadrate black patch on inner medial area..... *melanostigma*.
b^8. Fore wing with irregular black patch on inner medial area, its upper edge indented by the claviform ..... *senex*.
c^8. Fore wing without black patch on inner medial area.
a^9. Fore wing with more or less diffused white beyond postmedial line.

a^{10}. Fore wing with the white on postmedial area extending to costa.
a^{11}. Fore wing with the basal area mostly white ..... *deceptoria.*
b^{11}. Fore wing without white on basal area.
a^{12}. Fore wing with the reniform blackish with white annulus ..... *nemorum.*
b^{12}. Fore wing with the reniform white incompletely defined by black ..... *benita.*
b^{10}. Fore wing with the postmedial area blackish towards costa.
a^{11}. Fore wing with the postmedial area crossed by a black streak below vein 4.
a^{12}. Fore wing with the white suffusion beyond postmedial line abruptly truncate below the black streak..... *normalis.*
b^{12}. Fore wing with the white suffusion beyond postmedial line not abruptly truncate below the black streak ..... *larentiformis.*
b^{11}. Fore wing with the postmedial area not crossed by a black streak below vein 4.
a^{12}. Fore wing with black spot on termen below vein 4 ..... *glaucopis.*
b^{12}. Fore wing without black spot on termen below vein 4.
a^{13}. Fore wing with the postmedial line slightly excurved above vein 1.
a^{14}. Fore wing with large patch of white suffusion on postmedial and terminal areas except towards costa... *fasciana.*
b^{14}. Fore wing with slight patch of white suffusion beyond postmedial line towards inner margin .... *stygia.*
b^{13}. Fore wing the postmedial line not excurved above vein 1.
a^{14}. Fore wing with the postmedial line not excurved at vein 3 ..... *muscosula.*
b^{14}. Fore wing with the postmedial line slightly excurved at vein 3 ..... *falsa.*
b^{8}. Fore wing without white suffusion beyond postmedial line.
a^{10}. Fore wing with the reniform defined on outer side by white points and with some white suffusion above it on costa . *atrata.*
b^{10}. Fore wing with the orbicular and reniform with whitish annuli.
a^{11}. Fore wing without whitish streak on median nervure.
a^{12}. Fore wing fuscous brown mixed with grey.
a^{13}. Fore wing with the claviform not defined by a distinct white lunule at extremity ..... *fasciana* ab. *guenei.*
b^{13}. Fore wing with the claviform defined by a distinct white lunule at extremity ..... *distinguenda.*
b^{12}. Fore wing cupreous black-brown,
a^{13}. Fore wing with white line beyond the postmedial line from vein 4 to inner margin ..... *syggenes.*

b^{13}. Fore wing without white line beyond the postmedial line from vein 4 to inner margin.
a^{14}. Fore wing with white point at extremity of claviform ..... *onyles.*
b^{14}. Fore wing without white point at extremity of claviform ..... *confusa.*
c^{12}. Fore wing red-brown ..... *clandestina.*
d^{12}. Fore wing ochreous brown.
a^{13}. Fore wing without whitish patch on costa before and beyond postmedial line ..... *falsa* ab.
b^{13}. Fore wing with whitish patch on costa before and beyond postmedial line ..... *brunnea.*
b^{11}. Fore wing with whitish streak on median nervure.
a^{12}. Fore wing without dentate white line beyond postmedial line ..... *numisma.*
b^{12}. Fore wing with dentate white line beyond postmedial line ..... *[illegible]*
c^{10}. Fore wing with the orbicular and reniform white defined by black.
a^{11}. Fore wing suffused with black; a whitish patch at base of inner area ... *[illegible]*
b^{11}. Fore wing white tinged with rufous and irrorated with fuscous..... *binorbis.*
d. Fore wing with the reniform white defined by blackish, the orbicular absent ..... *cuchroa.*
a^{10}. Fore wing with the reniform concolorous.
a^{11}. Fore wing with oblique whitish line from costa defining the outer edge of orbicular and claviform.
a^{12}. Fore wing without blackish suffusion on outer part of costal half of medial area ..... *valta.*
b^{12}. Fore wing with blackish suffusion on outer part of costal half of medial area.
a^{13}. Fore wing with one or two dentate black marks before middle of subterminal line ..... *cœnia.*
b^{13}. Fore wing without dentate black marks before middle of subterminal line ..... *squalida.*
b^{11}. Fore wing without oblique whitish line from costa defining the outer edge of orbicular and claviform.
a^{12}. Fore wing with the postmedial line oblique from discal to submedian folds ..... *picta.*
b^{12}. Fore wing with the postmedial line excurved from below costa to vein 4, then incurved.
a^{13}. Fore wing grey.
a^{14}. Hind wing rufous ..... *geogr.*
b^{14}. Hind wing grey suffused with brown.

a^{15}. Fore wing with the reniform large and extending to well below the cell..... *nana.*
b^{15}. Fore wing with the reniform represented by black points at angles of cell..... *griseomixta.*
b^{13}. Fore wing black-brown.
a^{14}. Fore wing with the basal half chreous white with large black-brown patch on basal costal area... *merta.*
b^{14}. Fore wing with the basal half dark.
a^{15}. Fore wing with the orbicular and reniform defined by black ..... *holophæa.*
b^{15}. Fore wing with the orbicular and reniform absent ..... *mirella.*

5773. **Lithacodia micronephra**, n. sp. (Plate CLXIV. fig. 10.)

♂. Head whitish mixed with brown; thorax purplish red mixed with whitish; pectus and legs white mixed with black, the tarsi black ringed with white; abdomen fuscous with slight white segmental lines, the crests red at base, the crest on 3rd segment black, the ventral surface white irrorated with fuscous. Fore wing purplish red, the terminal area suffused and irrorated with fuscous; subbasal line white with black points before it at costa and median nervure, slightly angled outwards below costa and ending at median nervure; antemedial line white slightly defined on each side by black, oblique and slightly sinuous; reniform represented by a white bar, expanding and slightly defined by black below; postmedial line white slightly defined on each side by black, oblique, slightly excurved beyond the reniform, some white points beyond it on costa; traces of a punctiform whitish subterminal line, slightly angled outwards at vein 7 and excurved at middle; a terminal series of black striæ with slight white striæ before them; cilia red at base, white at tips. Hind wing whitish uniformly suffused with fuscous brown; a terminal series of black striæ slightly defined by whitish on inner side; cilia reddish at base, white at tips; the underside white irrorated with brown and fuscous, a black discoidal lunule, minutely waved postmedial line, and terminal series of small lunules.

Hab. Br. N. Guinea, Milne Bay (*Meek*), 1 ♂ type. *Exp.* 22 millim.

5774. **Lithacodia mandarina.** (Plate CLXIV. fig. 11.)

Erastria mandarina, Leech, Trans. Ent. Soc. 1900, p. 145.

Head and thorax red-brown mixed with yellow; abdomen yellow irrorated with brown. Fore wing red-brown mixed with yellow; the subbasal and antemedial lines, claviform and orbicular absent; reniform silvery white defined by black, narrow and oblique above, expanding into a conical spot below, a white striga

above it from costa and an incurved and slightly irregular white line defined at sides by black from it to inner margin, diffused patches of yellow beyond these markings below costa beyond upper part of reniform and below the cell; subterminal line represented by a slight yellow striga from costa. Hind wing yellowish white slightly irrorated with brown, the basal area suffused with red-brown; a dark brown terminal line; the underside white irrorated with red-brown, a blackish discoidal spot.

Hab. W. China, Pu-tsu-fang, 2 ♂, 2 ♀ type. *Exp.* 28–30 millim.

5775. Lithacodia fentoni. (Plate CLXIV. fig. 12.)

Erastria fentoni, Butl. Trans. Ent. Soc. 1881, p. 190.
Erastria versicolor, Oberth. Ét. Ent. x. p. 25, pl. 3. f. 7 (1884).

Head, thorax, and abdomen red-brown mixed with ochreous; palpi, pectus, and legs ochreous white mixed with fuscous, the abdomen with the dorsal crests blackish at tips. Fore wing red-brown finely irrorated with yellow, the terminal area redder; subbasal and antemedial lines, the claviform and orbicular absent; reniform silvery white defined by black, narrow and curved above, expanding into a rounded spot below, some orange suffusion beyond it; postmedial line represented by a small oblique wedge-shaped white mark slightly defined by black from costa and a sinuous white line defined by black at sides from below angle of cell to inner margin, some orange suffusion beyond it and some white points on costa; subterminal line represented by a striga from costa, then hardly traceable, yellowish and excurved at middle; cilia with blackish line at base, the tips white with some black-brown at apex, middle, and tornus. Hind wing dark reddish brown, the cilia whitish with brown line near base; the underside rufous irrorated with whitish especially on inner area.

In some specimens the areole of fore wing is very narrow or obsolete.

Hab. E. Siberia, Ussuri; Japan, Hakodaté (*Maries*), 1 ♀, Oiwake (*Pryer*), 2 ♂, 3 ♀, Nikko (*Maries*), 1 ♂, Tokio (*Maries*), 1 ♀ type, Yokohama (*Manley*, *Pryer*), 1 ♂, 1 ♀; Corea, Gensan (*Leech*), 2 ♀. *Exp.* 28 millim.

5776. Lithacodia albopunctalis.

Stemmatophora albopunctalis, Druce, Biol. Centr.-Am., Het. ii. p. 201 pl. 60. f. 10 (1895).

♀. Head, thorax, and abdomen cupreous red-brown; tarsi black-brown ringed with white; ventral surface of abdomen whitish. Fore wing red-brown with a metallic cupreous gloss; a faint double slightly sinuous antemedial line filled in with whitish towards inner margin; orbicular and reniform silvery white slightly defined by dark brown, the former minute, round, the

latter narrow above, conical below; postmedial line double, filled in with whitish towards costa and inner margin, slightly bent outwards below costa, excurved to vein 4, then incurved, traces of white points beyond it on costa and a small spot before apex; subterminal line represented by a faint dark shade incurved in submedian interspace. Hind wing cupreous red-brown; the cilia with a fine whitish line at base; the underside whitish thickly irrorated and suffused with red-brown, a slight dark discoidal lunule.

Hab. Guatemala, Vera Paz (*Champion*), 3 ♀ type, Godman-Salvin Coll. *Exp.* 30 millim.

5777. Lithacodia bellicula.

Lithacodia bellicula, Hübn. Zutr. Ex. Schmett. p. 18. ff. 85, 86 (1818); Smith, Cat. Noct. N. Am. p. 309.
Hydrelia semichalcea, Wlk. xxxiii. 797 (1865).

Head, thorax, and abdomen rufous mixed with white, the last with the crests on 3rd and 4th segments tipped with black. Fore wing rufous mixed with grey, some bright rufous above end of cell and below the cell before the postmedial line, the postmedial area yellowish except towards costa; antemedial line indistinct, rufous, waved, erect; orbicular with faint whitish annulus, round; the reniform represented by a whitish discoidal striga; postmedial line indistinctly double filled in with white, slightly bent outwards below costa, strongly excurved to vein 4, then angled inwards in submedian fold and oblique to inner margin, some whitish points

Fig. 150.—*Lithacodia bellicula*, ♂. ½.

beyond it on costa; subterminal line yellowish, angled outwards at vein 7 and excurved at middle; a fine blackish terminal line; cilia grey with a dark line through them. Hind wing cupreous brown, the cilia grey with a brown line through them; the underside grey irrorated with brown, the costal area tinged with cupreous red, a black discoids point and reddish postmedial line angled outwards beyond the cell.

Hab. Canada, Renfrew Co., 1 ♂, Nova Scotia (*Redman*), 1 ♂, type *semichalcea*; U.S.A., Eastern and Central States to Florida and Texas, Massachusetts Boston, 1 ♂, 1 ♀, Beverley (*Bury*), 1 ♂, New York (*Packard*), 6 ♂, 2 ♀, Colorado. *Exp.* 20–24 millim.

5778. Lithacodia cuprea. (Plate CLXIV. fig. 13.)

Galgula cuprea, Schaus, J. N.Y. Ent. Soc. vi. p. 119 (1898).

♂. Head brownish white, the antennæ brown ringed with white; thorax purplish red; palpi, pectus, and legs whitish mixed with brown; abdomen grey tinged with purplish and irrorated with brown. Fore wing purple, the terminal area cupreous red; antemedial line olive-white with some deep red scales on its edges, slightly angled outwards on subcostal and median nervures and inwards at vein 1; a dark discoidal striga with olive-white bar on its inner side and white bar on its outer, its extremities confluent with the postmedial line which is similarly coloured and angled outwards beyond the cell, some deep red suffusion before it; subterminal line with whitish point at costa, then only defined by the contrast between the postmedial and terminal areas, angled inwards at discal fold and incurved below vein 3; cilia cupreous red at base, white at tips with brown patches at apex and between veins 4 and 2. Hind wing greyish brown, the cilia white with a brown line through them; the underside whitish thickly irrorated with brown, traces of a minutely waved postmedial line.

Hab. Brazil, 1 ♂, Castro Paraña (*D. Jones*), 1 ♂. *Exp.* 22 millim.

5779. Lithacodia mella. (Plate CLXIV. fig. 14.)

Bryophila mella, Schaus, Trans. Am. Ent. Soc. xxi. p. 224 (1894).

♂. Head and thorax white mixed with blackish and some scarlet scales; palpi with the 1st and 2nd joints black at sides; tarsi banded with blackish; abdomen white with diffused blackish bands, the basal joint tipped with scarlet. Fore wing white irrorated with grey-green and some black; subbasal line black defined by white on inner side, excurved to below cell, then incurved, with patches of scarlet before it below costa and cell; antemedial line double at costa, black defined by white on outer side, oblique and slightly waved from costa to below cell, then angled inwards on vein 1, an oblique scarlet streak from it to postmedial line in submedian fold; orbicular with black centre and white annulus defined at sides by scarlet; the reniform a black bar defined by white on inner side; postmedial line double except below costa and towards inner margin, black filled in with white, slightly bent outwards below costa, incurved below vein 4, some white points with black marks between them beyond it on costa; subterminal line represented by a white band with series of scarlet spots on it except below costa, closely approximated to the postmedial line below vein 6 and slightly excurved below vein 7 and at middle; a terminal series of small black lunules slightly defined by white on inner side. Hind wing white, the apical area and inner margin irrorated with black, a black discoidal bar and

terminal series of striæ; the underside with the costal area irrorated with black.

Hab. Brazil, Castro Paraña (*D. Jones*), 1 ♂. *Exp.* 22 millim.

5780. Lithacodia chloromixta.

Bryophila chloromixta, Alph. Rom. Mém. vi. p. 21, pl. 2. f. 1 (1892).

Head and thorax white mixed with some olive-brown; palpi black, the extremities of 2nd and 3rd joints white; frons with lateral black bars; antennæ black; tegulæ with black line at base; patagia with some black scales near upper edge; pectus and legs white and blackish mixed, the tarsi black ringed with white; abdomen white suffused with fuscous brown, the crests tipped with black. Fore wing white suffused with pale olive-green and some brown and slightly irrorated with black; subbasal line black defined on outer side by white, slightly angled inwards in cell and outwards below it, ending at vein 1; antemedial line black defined on inner side by white, expanding into a spot at costa, then slightly sinuous, bent inwards to inner margin; claviform defined by a curved black mark extending to cell and with a white spot beyond it; orbicular white defined by black and its centre by brown, round; reniform white defined by black, its centre defined by brown and irrorated with brown, its lower extremity waved and somewhat broken up into spots; an oblique black medial shade from costa to reniform and sinuous line from cell to inner margin, a white spot beyond the reniform and another in submedian interspace before the postmedial line, which is black defined on outer side by white towards costa and inner margin, slightly bent outwards below costa, then minutely and irregularly waved, excurved to vein 4, then retracted to lower inner extremity of reniform, some black and white spots beyond it on costa and a white bar in submedian interspace; subterminal line slight, whitish defined on inner side by black with brown suffusion before it and slight white spots above and below vein 6, minutely waved, slightly angled inwards below costa and incurved at discal fold, incurved below vein 3; a terminal series of small black lunules defined on inner side by white; cilia chequered dark brown and white and with dark line near base. Hind wing whitish suffused with fuscous brown; cilia white with dark line near base except towards tornus; the underside white irrorated with black-brown, a blackish discoidal spot and minutely waved postmedial line strongly excurved below costa.

Hab. W. China, Gan-su, Ou-pin, Chang-yang (*Pratt*), 2 ♂, Omei-shan, 1 ♂, Chia-kou-ho (*Pratt*), 1 ♀, Pu-tsu-fang, 1 ♂, Ta-chien-lu (*Pratt*), 2 ♂, Moupin (*Krichdorff*), 1 ♂. *Exp.* 24–30 millim.

5781. **Lithacodia atrinotata**, n. sp. (Plate CLXIV. fig. 15.)

♀. Head, thorax, and abdomen pale olive-green mixed with some rufous and black; palpi black, the extremities of 2nd and 3rd joints white; frons with lateral black bars; tibiæ and tarsi banded with blackish. Fore wing pale olive-green suffused in parts with reddish brown especially on medial and postmedial areas; a strong black subbasal bar defined at sides by white from costa to submedian fold, with a black mark below it on inner margin; a slightly sinuous rather diffused blackish erect antemedial line: orbicular represented by a small black spot; reniform a very ill-defined whitish mark with some blackish striæ on its inner edge; an indistinct interrupted slightly sinuous blackish medial line; postmedial line with black point at costa, then slight, whitish, slightly bent outwards below costa, below vein 6 rather diffused dark brown, incurved below vein 4; subterminal line almost obsolete towards costa, below vein 5 strong, white, incurved below vein 3, a strong black fascia from it to termen below vein 4, its inner extremity rather bifid; a terminal series of slight blackish lunules faintly defined by whitish on inner side and a small triangular black spot below the black fascia; cilia pale green mixed with black-brown towards apex and at middle. Hind wing whitish suffused with reddish brown, the apex with dark brown; traces of a curved postmedial line; a terminal series of dark striæ with white points between them; cilia whitish mixed with red-brown and with brown line at middle; the underside white irrorated with red and a few dark scales, the costal and terminal areas suffused with red, a black discoidal spot and curved minutely waved reddish postmedial line.

Hab. Brazil, Rio Janeiro (*Wilson*), 1 ♀ type. *Exp.* 22 millim.

5782. **Lithacodia crotopha.** (Plate CLXIV. fig. 16.)

Erastria crotopha, Swinh. A. M. N. H. (7) xvi. p. 620 (1905).

Head and thorax whitish mixed with fiery red and black scales; palpi rufous and blackish tipped with white; tibiæ and tarsi blackish ringed with white; abdomen rufous mixed with fuscous, some whitish at base, the crests blackish. Fore wing golden green irrorated with some black and white scales, the costal area suffused with rufous; subbasal line represented by a black striga from costa; some rufous above base of inner margin; antemedial line black slightly defined on inner side by white and with some rufous and black suffusion before it from costa to below cell, erect, minutely dentate, angled inwards on vein 1; claviform and orbicular absent; reniform with faint whitish annulus and black point in lower part, narrow and constricted at middle; a diffused rufous medial band with sinuous edges; postmedial line black defined by white on outer side, bent outwards below costa, then dentate,

strongly incurved below vein 4, some white points beyond it on costa; subterminal line only defined by a rufous and black patch below costa, its outer edge dentate at veins 7, 6, two small blackish spots at middle and an incurved rufous and black line from vein 4 to inner margin; a terminal series of small black lunules slightly defined by whitish on inner side; cilia rufous, fuscous and white with a black line at middle. Hind wing fuscous brown with a reddish tinge; a terminal series of black striæ slightly defined by whitish on inner side; cilia rufous and white with a black line at middle; the underside white suffused with red and irrorated with fuscous, a black discoidal spot and curved minutely waved post-medial line.

Hab. Assam, Khásis, 2 ♂, 2 ♀ type. *Exp.* 26–34 millim.

5782. **Lithacodia chlorophila**, n. sp. (Plate CLXIV. fig. 17.)

♂. Head and thorax olive-green mixed with whitish and some red-brown and black, the head and tegulæ more rufous; tarsi banded with blackish; abdomen pale green mixed with whitish and some black. Fore wing olive-green mixed with whitish and slightly irrorated with red-brown; subbasal line whitish, waved, from costa to submedian fold, with black marks before it at costa and in and below cell; antemedial line double, green filled in with whitish, erect, slightly waved, with black spots before and beyond it at costa; orbicular defined by a slight oblique whitish striga on its outer edge, the reniform with slight whitish annulus, somewhat constricted at middle and angled inwards on median nervure, a black patch between them in cell forming part of a diffused sinuous black medial line; an oblique diffused sinuous black fascia from outer edge of reniform to costa towards apex; postmedial line double, with small black spot at costa, bent outwards below costa, then minutely dentate, excurved to vein 4, then oblique, some pale points with black marks between them beyond it on costa; subterminal line indistinct, whitish defined on inner side by slight blackish marks and with some black beyond it at discal fold where it is angled inwards; a terminal series of small black lunules with white points between them. Hind wing white slightly irrorated with brown and tinged with purplish pink on costal and terminal areas; a terminal series of black striæ; cilia whitish mixed with reddish and fuscous; the underside whitish suffused with purplish red and slightly irrorated with fuscous, a black discoidal bar and indistinct curved postmedial line.

Hab. Brazil, Rio Janeiro (*Wilson*), 1 ♂ type. *Exp.* 34 millim.

5784. **Lithacodia glauca**, n. sp. (Plate CLXIV. fig. 18.)

♀. Head and thorax olive-green mixed with white and some blackish; palpi reddish, the extremity of 2nd and 3rd joints white, tarsi black ringed with white; abdomen whitish tinged

with purplish pink and irrorated with fuscous, the crest blackish. Fore wing olive-green with a slight reddish tinge, mixed with white and irrorated with blackish, the median nervure and vein 1 on medial area streaked with purplish grey; subbasal line represented by white striæ from costa and cell with black marks beyond them; antemedial line black slightly defined by white on inner side, double at costa, erect, waved; orbicular with white centre defined by black, small, round; reniform an ill-defined whitish mark with some black on its inner edge; an indistinct irregularly waved black medial line; postmedial line black, indistinctly double and filled in with white towards costa, minutely waved, oblique from costa to vein 6, incurved below vein 4, some white points with black streaks between them beyond it on costa; subterminal line white defined on inner side by slight dentate black marks, excurved below vein 7, excurved and minutely waved at middle; a terminal series of small black lunules slightly defined by white on inner side; cilia chequered green and black. Hind wing whitish tinged with purplish pink and suffused with brown; a slight postmedial line faintly defined by white on outer side; a terminal series of black striæ; cilia pink at base, white at tips; the underside purplish pink mixed with some white, a black discoidal point and indistinct curved postmedial line.

Hab. Jamaica (*Mrs. Swainson*), 1 ♂ type. *Exp.* 20 millim.

*5785. Lithacodia bryistis. (Plate CLXIV. fig. 19.)

Erastria bryistis, Turner, Pr. Linn. Soc. N.S.W. 1902, p. 109.

♂. Head, thorax, and abdomen pale ferruginous mixed with grey; palpi blackish at sides; tarsi fuscous ringed with grey. Fore wing grey-green; a double waved subbasal line from costa to vein 1 angled below the cell; a double waved antemedial line angled outwards below costa and cell and with black suffusion beyond it from costa to vein 1, above which it runs out to termen; orbicular and reniform rufous outlined with black; the discal area rufous; the postmedial line dentate, excurved from below costa to vein 4, then incurved; an indistinct waved subterminal line excurved at vein 7 and middle; cilia chequered fuscous and whitish. Hind wing ochreous white suffused with fuscous; a dark discoidal spot and curved postmedial line defined by white on outer side; an indistinct whitish subterminal line; cilia whitish chequered with fuscous. Underside whitish slightly suffused with fuscous; fore wing with black postmedial line angled outwards below costa; hind wing with oblique antemedial line, black discoidal spot, minutely dentate postmedial line, and diffused subterminal line.

Hab. Queensland, Brisbane, type † ♂ in Coll. Turner. *Exp.* 32 millim.

5786. Lithacodia cupreofusca, n. sp. (Plate CLXIV. fig. 20.)

♀. Head and thorax deep cupreous red-brown mixed with ochreous white; palpi blackish, the tips of 2nd and 3rd joints white; antennæ with the extremity of basal joint white; legs blackish, the tibiæ and tarsi ringed with white; abdomen whitish mixed with brown, the crests black. Fore wing deep cupreous black-brown mixed with some grey and yellowish white especially on basal area; subbasal and antemedial lines represented by black striæ from costa; orbicular and reniform with slight whitish annuli defined by black, the former round, the latter constricted at middle; postmedial line black defined by yellowish on outer side, bent outwards below costa, then minutely waved, excurved to vein 4, then incurved and slightly excurved below submedian fold, some pale points beyond it on costa; subterminal line very indistinct, greyish, slightly angled outwards at veins 7, 6 and interrupted at middle; a terminal series of small black lunules slightly defined by yellowish on inner side. Hind wing whitish suffused with reddish brown; a fine black terminal line; cilia brown mixed with whitish and with fine whitish line at base; the underside whitish thickly irrorated with red-brown, a slight black discoidal lunule and traces of a curved postmedial line.

Hab. Java, Arjuno, 8000′ (*Doherty*), 1 ♀ type. *Exp.* 32 millim.

5787. Lithacodia formosana, n. sp. (Plate CLXIV. fig. 21.)

Head, thorax, and abdomen grey-white mixed with black; palpi black, the extremities of 2nd and 3rd joints white; antennæ ringed black and white; tibiæ and tarsi banded with black. Fore wing apple-green mostly suffused with black-brown except the postmedial area from discal fold to inner margin; subbasal line blackish, waved, from costa to vein 1; antemedial line blackish defined on inner side by green, irregularly waved, bent outwards to inner margin; orbicular and reniform pale green defined by black, the former round with black centre, the latter constricted at middle and with black spots in upper and lower parts; postmedial line black defined on outer side by green, bent outwards below costa, then sinuous, slightly angled inwards at discal fold, incurved below vein 4 and angled inwards at vein 1, some ochreous white points beyond it on costa; a whitish subterminal line defined on inner side by black, excurved below vein 7 and at middle and ending at tornus; a terminal series of black lunules and spot below vein 4; cilia brown mixed with some white. Hind wing white, the inner half tinged with fuscous; a slight dark subterminal shade; cilia with a dark line through them; the underside white tinged with rufous and irrorated with fuscous, a black discoidal point and sinuous postmedial line excurved from costa to vein 4.

Hab. Formosa, Kagi District, 7000′, 1 ♂, 3 ♀ type. *Exp.* 24–28 millim.

5788. Lithacodia musta. (Plate CLXIV. fig. 22.)

Erastria musta, Grote & Rob. Trans. Ent. Soc. i. p. 358 (1868); Druce, Biol. Centr.-Am., Het. i. p. 311; Smith, Cat. Noct. N. Am. p. 311.

Head, thorax, and abdomen brownish grey mixed with some red-brown and black; palpi blackish; frons with lateral black bars; tarsi blackish ringed with white; abdomen with the crests black. Fore wing olive-green irrorated with black, the outer half of medial area partly suffused with rufous; subbasal line black, from costa to median nervure; antemedial line black defined on inner side by whitish and rufous, erect, slightly sinuous; claviform with rufous and black centre and whitish annulus defined by black; orbicular with black centre and rufous annulus defined by black, small, round; reniform with rufous centre and incomplete whitish annulus defined by black, a black streak beyond it in discal fold; an oblique slightly waved line from lower angle of cell to inner margin; postmedial line double, black filled in with rufous, strongly bent outwards below costa, then very minutely waved, excurved to vein 4, then incurved, some white beyond it at costa and from vein 4 to inner margin; subterminal line represented by slight dentate white marks defined on inner side by dentate black marks excurved below vein 7 and at middle; a terminal series of black streaks; cilia black mixed with grey and with black line at middle. Hind wing greyish suffused with brown; a fine black terminal line; cilia whitish and fuscous with a dark line near base; the underside whitish irrorated with brown, a dark discoidal spot and minutely waved postmedial line.

Ab. 1. Fore wing with the medial area almost wholly suffused with black and purplish grey.—Costa Rica.

Hab. U.S.A., Eastern, Middle, and Central States, W. Virginia, 1 ♀, Kentucky (*Sanborn*), 1 ♀, Missouri; Costa Rica, R. Sucio (*Rogers*), 3 ♂, 3 ♀, Candelaria Mts. (*Underwood*), 1 ♀, Guatemala, Salvin Coll. *Exp.* 20–24 millim.

*5789. Lithacodia cidarioides.

Motama cidarioides, Moore, Lep. Atk. p. 110, pl. 4. f. 9 (1882); Hmpsn. Moths Ind. ii. p. 302.

Head and thorax purple-brown; pectus and legs greyish. Fore wing dark purple-brown, the basal area and the terminal area except at apex golden yellow; subbasal line represented by a black striga from costa; antemedial line double filled in with yellow, erect, minutely waved; orbicular with faint yellow annulus, round; reniform yellow with dark points in upper and lower parts, constricted at middle; postmedial line double filled in with yellow, bent outwards below costa, oblique to vein 4, then bent inwards and again slightly excurved; subterminal line represented by some

ill-defined dark spots; cilia brown. Hind wing whitish suffused with red-brown; traces of a discoidal point and diffused subterminal band.

Hab. Sikhim. *Exp.* 28 millim. This species is unknown to me.

5790. Lithacodia aurata. (Plate CLXIV. fig. 23.)

Motama aurata, Moore, Lep. Atk. p. 110, pl. 4. f. 10 (1882); Hmpsn. Moths Ind. ii. p. 301.

♂. Head and thorax pale green mixed with rufous and some ochreous white and black scales; tibiæ and tarsi blackish ringed with ochreous; abdomen ochreous white mixed with brown, the crests rufous, the anal tuft tinged with rufous. Fore wing golden green, the costal area dark red-brown with some white irroration, some brown and white irroration on base of inner margin; antemedial line brown, oblique to submedian fold, then incurved; claviform defined by white and brown at extremity, some white suffusion below it and brown irroration beyond it; orbicular and reniform green with very incomplete white annuli defined in parts by brown and with dark brown quadrate patch between them, the former round; an oblique sinuous brown line from lower angle of cell to inner margin; vein 4 irrorated with brown and white to the postmedial line, which is brown at costa, middle and inner margin, green defined on outer side by white between those points, bent outwards below costa then sinuous, incurved below vein 4 and excurved at vein 1, some yellow points beyond it on costa; subterminal line green defined on inner side by red-brown suffusion, except below vein 2, slightly angled outwards at vein 7 and excurved at middle; a terminal series of small dark lunules; cilia pink at base, red brown at tips. Hind wing whitish suffused with brown, the disk paler; a fine dark terminal line; cilia pink with a fine ochreous line at base; the underside ochreous white irrorated with brown, a blackish discoidal spot and minutely waved postmedial line bent outwards below costa.

Hab. Sikhim, 7000′ (*Möller*), 1 ♂. *Exp.* 30 millim.

*5791. Lithacodia decorata.

Motama decorata, Moore, Lep. Atk. p. 111, pl. 4. f. 8 (1882); Hmpsn. Moths Ind. ii. p. 302.

Head and thorax dark golden brown irrorated with grey; palpi black, the extremities of joints white; tibiæ and tarsi black ringed with white; abdomen brown. Fore wing deep golden brown, the costal area and veins irrorated with white; subbasal line represented by double dark striæ from costa; antemedial line dark, erect, minutely waved; claviform and orbicular yellow defined by brown and with dark points in centre, small, rounded; reniform

yellow, constricted at middle; a quadrate dark patch in cell between orbicular and reniform; postmedial line blackish with a yellow band on its outer edge, bent outwards below costa, then minutely dentate, incurved below vein 4, and angled outwards at vein 1; a sinuous yellow subterminal band with dark suffusion before it on costal half; a terminal series of small black lunules; cilia brown. Hind wing uniform dark brown.

Hab. Sikhim. *Exp.* 28 millim. This species is unknown to me.

5792. Lithacodia dorata. (Plate CLXIV. fig. 24.)

Erastria dorata, Hmpsn. J. Bomb. Nat. Hist. Soc. xiv. p. 205 (1902).

Head and thorax golden yellow mixed with rufous, the tegulæ with slight dark points; antennæ with the shaft black with pale rings; fore legs blackish; abdomen yellowish white irrorated with brown, the crests blackish, the anal tuft tinged with rufous. Fore wing golden yellow suffused and irrorated with bright rufous; subbasal line represented by a rufous striga from costa; antemedial line rufous defined on inner side by yellow, double at costa, incurved in submedian interspace; claviform, orbicular, and reniform with yellow centres and white annuli defined by blackish, the first extending to median nervure and confluent with the orbicular which has its lower extremity produced to a point; the reniform constricted at middle and somewhat angled inwards on median nervure; a waved rufous line from lower angle of cell to inner margin; postmedial line blackish defined on outer side by golden yellow and below vein 4 on inner side also, bent outwards below costa, then minutely waved, excurved to vein 4, then incurved, some yellow points beyond it on costa; subterminal line slight, yellow, defined on inner side by bright rufous, angled outwards at vein 7 and excurved at middle; a fine terminal blackish line. Hind wing yellowish white slightly irrorated with brown especially on the veins; a fine terminal black line interrupted at the veins; the underside yellow irrorated with brown, a blackish discoidal spot, minutely waved postmedial line excurved below costa, and traces of a subterminal line.

Hab. Ceylon, Newara Eliya (*Mackwood*), 1 ♂, 1 ♀ type. *Exp.* ♂ 26, ♀ 28 millim.

5793. Lithacodia titanica, n. sp. (Plate CLXIV. fig. 25.)

♀. Head and thorax bright purplish mixed with black, and some white scales; abdomen whitish mixed with rufous and dark brown. Fore wing bright pinkish mostly suffused with dark red-brown; subbasal line double, whitish, obliquely curved from costa to median nervure at base; antemedial line brown, interrupted at

the veins, with a white bar on its outer side in submedian interspace, double and filled in with pink towards inner margin, incurved at vein 1 and bent outwards above inner margin; orbicular with the annulus pink above and white below, round; reniform with some pink in centre, its annulus white, pink above and on upper part of inner side, extending to well below the cell and slightly angled inwards on median nervure; postmedial line indistinctly double filled in with pink, strongly bent outwards below costa, then very minutely waved, incurved below vein 4 and with traces of a punctiform white line beyond it, and some white points on costa; subterminal line whitish, excurved below vein 7 and angled inwards at discal fold; a terminal series of small black lunules slightly defined on inner side by whitish; cilia with a blackish line through them. Hind wing pink, the base and costal area to middle whitish, the terminal half irrorated with brownish; a terminal series of small brownish lunules; cilia whitish at tips; the underside pink slightly irrorated with brown, a black discoidal spot and diffused curved postmedial line.

Hab. Madagascar, Betsileo (*Cowan*), 4 ♀ type. *Exp.* 44 millim.

5794. Lithacodia rosacea.

Erastria rosacea, Leech, P. Z. S. 1889, p. 527, pl. 53. f. 9.

Head and thorax pink mixed with whitish and brown; abdomen ochreous whitish mixed with brown. Fore wing pale pink mostly suffused with brown and irrorated with black; subbasal line represented by a blackish striga from costa defined on each side by pink; antemedial line dark defined on outer side by pink, slightly angled outwards below costa and on median nervure; claviform with pink annulus defined by black, round and extending to median nervure; orbicular minute, round, with black centre and pink annulus defined by black; reniform pink defined by black and with brownish centre, oblique elliptical; a sinuous black line from lower angle of cell to inner margin; postmedial line double and filled in with pink except at middle, bent outwards below costa, excurved to vein 4, then incurved and minutely dentate, some pink points beyond it on costa; subterminal line pink defined on inner side by dark suffusion, minutely dentate, excurved below vein 7 and at middle; a terminal series of blackish striæ; cilia pinkish with a dark line at middle and dark points at tips. Hind wing golden brown; the cilia yellowish white with a brown line at middle; the underside ochreous white irrorated with brown, a slight discoidal point, curved rather diffused postmedial line, and terminal series of minute black lunules.

Hab. Japan, Oiwake (*Pryer*), 2 ♂, 2 ♀ type. *Exp.* 22–27 millim.

5795. Lithacodia carneola. (Plate CLXIV. fig. 26.)

Erastria carneola, Guen. Noct. ii. p. 228 (1852); Smith, Cat. Noct. N. Am. p. 312.
Erastria biplaga, Wlk. xii. 809 (1857).

Head and thorax white mixed with dark reddish brown; palpi black-brown, whitish in front towards base; pectus and legs white, the fore tibiæ and tarsi black-brown ringed with white; abdomen white mixed with some brown, the crests black-brown. Fore wing grey tinged with pinkish and rufous; the antemedial area obliquely from costa to inner margin at postmedial line dark brown mixed with reddish brown leaving some diffused white at base, a truncate triangular dark brown patch on costa from middle to near apex extending to lower angle of cell; subbasal line represented by an oblique whitish striga from costa, a minute subbasal streak of raised black scales below the cell; antemedial line indistinct, double filled in with whitish, oblique, sinuous; orbicular represented by an oblique black striga on its outer edge; reniform irrorated with grey and defined by black at sides; postmedial line indistinctly double filled in with whitish, strongly bent outwards below costa, then with three short black streaks beyond it, then minutely dentate and produced to black points on the veins, incurved below vein 4, some white points beyond it on costa; subterminal line white, excurved below vein 7 and at middle and bent outwards to tornus; a terminal series of dark striæ slightly defined by white on inner side; cilia whitish tinged with rufous. Hind wing white tinged with red-brown except on costal area; a fine dark terminal line; cilia white tinged with red-brown at base; the underside white slightly irrorated with brown, a dark discoidal lunule, curved minutely waved postmedial line, and traces of subterminal line.

Hab. Canada (*Norman*), 1 ♂, Manitoba, Assiniboine R. (*Russell*), 3 ♂, 2 ♀; U.S.A., East of Rocky Mts., Massachusetts (*Burg*), 1 ♂, Beverley, 2 ♂, 1 ♀, New York (*Doubleday, Packard*), 8 ♂, 4 ♀ type, Garrison (*Cockerell*), 2 ♂, Illinois, 1 ♂. *Exp.* 26–30 millim.

Larva. Coquillett, Papilio, i. p. 7.

Green, the subdorsal space tinged with blackish; white subdorsal and stigmatal lines and rows of white dots between. Head green. Food-plant: Yellow Dock.—H. G. D.

5796. Lithacodia apicosa. (Plate CLXIV. fig. 27.)

Phytometra apicosa, Haw. Lep. Brit. p. 261 (1809); Steph. Ill. Brit. Ent., Haust. iii. p. 119; Wood, Ind. Ent. p. 78, pl. 17. f. 22; Smith, Cat. Noct. N. Am. p. 311.
Erastria nigritula, Guen. Noct. ii. p. 229, pl. x. f. 7 (1852).
Miana undulifera, Wlk. ix. 258 (1856).

Head and thorax fuscous black mixed with some grey; antennæ ringed with grey; tarsi ringed with white; abdomen black mixed with white towards base and with slight white stigmatal lines;

the crests black, the ventral surface white tinged with rufous. Fore wing fuscous black tinged and irrorated with grey, the terminal area white tinged with pink; a tuft of white scales at base; subbasal line black defined on outer side by some brown and white scales, waved, from costa to submedian fold; antemedial line black defined on each side by some whitish scales, angled inwards at vein 1, the claviform represented by a black mark on its outer edge; orbicular and reniform with brown centres and whitish annuli defined by black, the former round, the latter oblique elliptical with whitish lunule in centre; postmedial line black defined on outer side by pinkish, strongly bent outwards below costa, then minutely waved, strongly incurved below vein 4, some whitish points beyond it on costa; subterminal line pinkish defined on inner side by a red-brown band from the black costal area to inner margin and on outer side by a black spot at middle, then by some red-brown suffusion; a terminal series of small black lunules defined on inner side by pinkish; cilia chequered pinkish and fuscous, with a black line at middle, wholly pinkish towards apex. Hind wing yellowish white irrorated with brown, a dark discoidal lunule, curved postmedial line, and diffused subterminal band; a terminal series of black lunules from below apex to submedian fold; cilia whitish with a dark line at middle from apex to submedian fold; the underside white slightly irrorated with black, the costal area tinged with ochreous, a black discoidal lunule, curved postmedial line, and traces of a diffused subterminal band with blackish patches at costa and discal and submedian folds.

Hab. CANADA (*Norman*), 1 ♂; U.S.A., Eastern and Central States, Massachusetts (*Burg*), 1 ♂, Beverley, 1 ♂, 1 ♀, Cambridge (*Boll*), 1 ♂, New York (*Osten-Sacken, Packard*), 3 ♂, 1 ♀, Evans Center (*Grote*), 2 ♀, Pennsylvania, 1 ♀, Florida, St. John's Bluff (*Doubleday*), 3 ♀, types *nigritula* and *undulifera*; CUBA. *Exp.* 26–32 millim.

5797. Lithacodia minuta.

Celæna minuta, Druce, Biol. Centr.-Am., Het. i. p. 276, pl. 27. f. 2 (1889).

♂. Head and thorax creamy white; palpi with the 2nd joint brownish at sides; antennæ brown; tegulæ with faint brownish medial line; patagia fuscous at extremities; tibiæ and tarsi banded with fuscous; abdomen white irrorated with fuscous towards extremity, the crests black, the anal tuft rufous. Fore wing rufous with a silvery gloss, the basal area and medial costal area irrorated with black and tinged with leaden grey; a bright red subbasal mark in cell; antemedial line indistinctly double filled in with whitish and defined by whitish on inner side, very minutely waved to median nervure, then excurved; orbicular white tinged with rufous, very oblique and extending to well below the cell; reniform with whitish annulus, small, elliptical; a faint dentate medial line

from cell to inner margin: postmedial line black, strongly excurved beyond the cell and dentate at veins 2 and 1; subterminal line brownish, closely approximated to the postmedial line, strongly dentate at discal and submedian folds, the area beyond it becoming silvery white towards termen; a rufous line just before termen angled inwards at discal and submedian folds so as almost to divide up the subterminal area into three rounded patches; a triangular red mark on termen at discal fold followed by a line to tornus; cilia rufous, chequered with black at middle. Hind wing semihyaline white, the veins, costal and terminal areas suffused with reddish brown; cilia white, tinged with rufous at apex; the underside with the costal area suffused with red, a dark discoidal spot, indistinct postmedial line excurved at vein 6, and rufous terminal line.

Hab. Guatemala, Volcan de Atitlan (*Champion*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 20 millim.

*5798. Lithacodia editha. (Plate CLXIV. fig. 28.)

Eustrotia editha, Schaus, Trans. Am. Ent. Soc. xxx. p. 154 (1904).

♀. Head and thorax bright rufous mixed with blackish; palpi with pale band at base of 3rd joint; two black points between antennæ; tegulæ with blackish lines near base and tips; patagia with black annuli at middle and black tips; meso- and metathorax with paired black spots; pectus and legs white tinged with rufous, the tarsi blackish ringed with white; abdomen whitish suffused with rufous. Fore wing with the basal half bright rufous mixed with some fuscous and white, its outer edge slightly incurved; subbasal line double, black filled in with pale pink, waved, from costa to submedian fold; antemedial line double, black filled in with pale pink, waved, slightly angled outwards below costa; orbicular defined by black, small, round; medial line blackish, slightly excurved, incurved at submedian fold; terminal half white almost wholly suffused with pale olive-brown, except in and above end of cell; reniform defined by some brown points; an incurved olive band from lower angle of cell to inner margin; a postmedial olive band, with slight blackish marks on it beyond the cell, bent outwards and almost obsolete below costa, excurved to vein 4, then incurved, defined by white on outer side on inner half, some white points beyond it on costa with minute black streaks between them before the subterminal curved white line which is defined on inner side by an olive band; a terminal series of black points from apex to vein 4 with a lunulate black patch on termen and cilia at discal fold; cilia pale olive. Hind wing whitish suffused with cupreous brown; a terminal series of dark spots from apex to vein 4; cilia whitish tinged with red towards apex. Underside of fore wing with the costal area fiery red; hind wing whitish, the costal area and veins beyond the cell suffused with fiery red, the costal area and terminal

area to vein 2 slightly irrorated with brown, a small brown discoidal spot, curved rather diffused postmedial and subterminal lines, a terminal series of lunulate black spots from apex to vein 2 and a line in submedian interspace.

Hab. Mexico, Jalapa (*Schaus*), type † ♀ in U.S. Nat. Mus. *Exp.* 24 millim.

5799. **Lithacodia melanostigma.** (Plate CLXIV. fig. 29.)

Erastria melanostigma, Hmpsn. Moths Ind. ii. p. 302 (1894).

♀. Head and thorax whitish suffused with ochreous brown, the tips of patagia with some black scales; palpi blackish with white tips; legs with blackish mixed, the tarsi ringed with white; abdomen whitish mixed with brown, the crests black. Fore wing whitish suffused with ochreous brown and irrorated with a few black scales, the inner half of medial area velvety black; subbasal line represented by small obliquely placed black spots on costa and in cell; antemedial line with two black points at costa, then whitish obsolescent and oblique to median nervure with a black point on it in cell, then pure white and inwardly oblique; claviform and orbicular absent; reniform a very indistinct whitish lunule with some black scales on it; some white suffusion on terminal part of median nervure and beyond the cell; a black striga from middle of costa; postmedial line represented by two black points on costa with some white suffusion below them, below vein 6 double, black filled in with white, very minutely waved, excurved to vein 4, then incurved; subterminal line whitish defined on inner side by black suffusion from costa to vein 3, angled outwards at veins 7, 6, 4, 3; a terminal series of slight dark striæ; cilia whitish mixed with fuscous, mostly white towards tornus. Hind wing brown with a golden gloss; cilia whitish with a brown line through them; the underside whitish tinged with ochreous and irrorated with brown, a blackish discoidal point, sinuous postmedial line, and fine terminal line.

Hab. Assam, Khásis (*Elwes*), 2 ♀ type, Nága Hills (*Doherty*) 1 ♀. *Exp.* 22 millim.

5800. **Lithacodia senex.** (Plate CLXIV. fig. 30.)

Erastria senex, Butl. Trans. Ent. Soc. 1881, p. 189.

Head white, the palpi, a bar above frons, and antennæ blackish; thorax black-brown with some white scales, the patagia, pro- and metathorax with white patches; pectus and legs white tinged with rufous, the tarsi ringed with white; abdomen white suffused with rufous, the crests black. Fore wing white tinged with olive-brown, the basal costal area black irrorated with white scales, a black bar from it to inner margin, angled inwards on vein 1 and outwards above inner margin; the subbasal line represented by a white striga

from costa; antemedial line indistinct, black defined on inner side by white, interrupted at middle, irregularly waved; the medial area with black patches irrorated with white from costa to median nervure and submedian fold to inner margin; claviform pale rufous defined by white and black below and at extremity; orbicular and reniform pale rufous with white annuli, the former incompletely defined by black, round, the latter faintly defined by brown, lunulate: postmedial line represented by a black striga from costa and incurved striga from vein 1 to inner margin, between those points hardly traceable, dentate, incurved below vein 4, some white points with slight black streaks between them beyond it on costa; a black apical patch angled inwards below costa; subterminal line white, angled outwards at vein 7, then diffused and indistinct, excurved at middle, a short black streak beyond it below vein 4; some slight dark striæ on termen towards apex; cilia with some black at apex, middle, and tornus. Hind wing reddish brown; the cilia white with a dark line through them; the underside white slightly irrorated with brown, a blackish discoidal spot, and curved minutely waved postmedial line.

Hab. Japan, Tokio (*Maries*), 1 ♀ type, Nagasaki (*Leech*), 1 ♂, Yokohama (*Pryer*), 3 ♂, 2 ♀. *Exp.* 28–30 millim.

5801. Lithacodia deceptoria.

Phalæna deceptoria, Scop. Ent. Carn. p. 214 (1763); Staud. Cat. Lep. pal. p. 231.

Phalæna tincodes, Hüfn. Berl. Mag. iii. p. 412 (1767); id. Naturf. ix. p. 138 (1776); Scriba, Beitr. iii. pl. 13. f. 6; View. Tab. Verz. ii. p. 86. pl. 1. f. 7.

Noctua atratula, Schiff. Wien. Verz. p. 89 (1776); Hübn. Eur. Schmett., Noct. f. 296; Dup. Lép. Fr., Suppl. iii. p. 563, pl. 47. f. 8; Frr. Neue Beitr. pl. 693. f. 2.

Head and thorax black-brown mixed with some white scales, the metathorax mostly white; palpi white at base; tarsi black ringed with white; abdomen white mixed with black-brown, the crests black. Fore wing black-brown, the inner half of basal area and the postmedial area white; subbasal line represented by a white striga from costa; antemedial line black defined on inner side by a white band on the dark costal area, excurved and slightly sinuous; claviform represented by a white point; orbicular with white annulus defined by black except on inner side where it is confluent with the white antemedial band, round; reniform with white annulus incompletely defined by black, its centre also defined by black; postmedial line black, irregularly dentate, oblique from costa to vein 6, angled inwards at discal fold, incurved below vein 4 and angled outwards at vein 1, a dark spot beyond it on costa; subterminal line white, strong towards costa, defined on inner side by a brown patch on costal area with a white point on costa, then by some brown suffusion, slightly angled inwards below costa and at discal and submedian folds and excurved at middle; a terminal

series of blackish points; cilia brown mixed with whitish, a dark line at middle, the tips chequered with white. Hind wing white suffused with cupreous brown, a slight dark discoidal lunule, traces of curved postmedial line defined by whitish on outer side and a dark terminal line; cilia white with a brown line near base, a series of brown spots at tips from apex to vein 2, and some brown scales at vein 1; the underside white slightly irrorated with brown, a blackish discoidal lunule, curved postmedial line, subterminal band from costa to termen at vein 1 expanding into patches at costa and discal fold, and terminal line.

Hab. France, Sand and Leech Colls.; Germany, Zeller and Frey Colls.; Austria, Leech Coll.; Hungary, Leech Coll.; Switzerland, Zeller, Frey, and Leech Colls.; Italy; Russia, Urals; W. Siberia, Altai; E. Siberia, Amur; N. China. *Exp.* 26–30 millim.

Larva. Kirby, Butt. & Moths Eur. p. 285; Hffm. Raup. p. 143, pl. 36. f. 14.

Green, paler above with a dark dorsal line, a white subdorsal line, and yellowish lateral line. Food-plants: Grasses.

5802. Lithacodia nemorum.

Erastria nemorum, Oberth. Ét. Ent. v. p. 82, pl. iv. f. 2 (1880); Staud. Cat. Lep. pal. p. 231.
Erastria africana, Leech, P. Z. S. 1889, p. 525 (nec Feld.).

Head and thorax black-brown mixed with some grey; pectus and legs greyer, the tarsi black ringed with white; abdomen grey suffused with fuscous brown, the crests blackish. Fore wing reddish brown irrorated with black and suffused with purplish grey; subbasal line represented by slight black striæ from costa and cell; antemedial line black, dentate, erect; claviform small, defined by black and with slight white annulus; orbicular and reniform small with greyish centres and white annuli defined by black, the former round, the latter strongly constricted at middle, its outer edge incompletely defined; postmedial line blackish, oblique from costa to vein 6, then minutely dentate, strongly incurved below vein 4; postmedial area white extending to inner side of postmedial line beyond the cell, some blackish points on costa; subterminal line white, excurved below vein 7 and at middle, angled inwards at discal and submedian folds; a terminal series of black striæ; cilia blackish mixed with some white. Hind wing greyish suffused with cupreous brown; a slight dark terminal line; cilia whitish with a brown line near base; the underside whitish irrorated with brown, the costal and apical areas suffused with red-brown, a black discoidal striga, and indistinct postmedial line strongly excurved at middle.

Hab. E. Siberia, Amurland, Ussuri; Japan, Oiwake (*Pryer*), 2 ♂, 1 ♀, Yokohama (*Pryer*), 2 ♂; Corea, Gensan (*Leech*), 2 ♂, 1 ♀. *Exp.* 24–26 millim.

*5803. Lithacodia benita. (Plate CLXIV. fig. 31.)

Turache benita, Schaus, Trans. Am. Ent. Soc. xxx. p. 160 (1904).

♀. Head and thorax red-brown mixed with black and a few white scales; palpi whitish in front; tibiæ and tarsi black ringed with white; abdomen black-brown with slight whitish segmental rings. Fore wing black-brown mixed with some red and grey to reniform and below it to postmedial line, then white to beyond postmedial line, the terminal area pale brown; subbasal line black slightly defined by white on inner side, waved, from costa to submedian fold in which there is a short ochreous streak before it; antemedial line black defined by whitish on inner side, minutely waved and inwardly oblique, slightly excurved below costa and submedian fold; orbicular a minute ochreous spot defined by black; reniform white incompletely defined by black, rather concave towards base; a diffused dentate black medial line, oblique from costa to below reniform; postmedial line with brown spot at costa, oblique to vein 6, then double, the inner line black and waved, incurved below vein 5, some white points beyond it on costa; subterminal line white with some red suffusion before it below costa, excurved below vein 7 and at middle, with a black patch from it to termen at discal fold; a terminal series of small black lunules. Hind wing dark brown, the cilia white at tips on inner half; the underside paler brown with some whitish irroration in and beyond cell, a small discoidal spot, indistinct postmedial line excurved to vein 5, then oblique, and a terminal series of dark spots with white spots before them except towards apex.

Hab. Brazil, Castro Paraña (*D. Jones*), type † ♀ in U.S. Nat. Mus. *Exp.* 24 millim.

5804. Lithacodia normalis, n. sp. (Plate CLXIV. fig. 32.)

♀. Head and thorax grey-white mixed with reddish brown and fuscous; palpi black, whitish at base in front; fore tibiæ and tarsi banded black and white; abdomen grey-white irrorated with brown. Fore wing purplish red mixed with grey and irrorated with black, the inner area grey-white to submedian fold with some greenish below base of cell, the terminal area grey-white except at apex interrupted by a blackish streak below vein 4; subbasal line represented by a slight black striga from costa; traces of a black antemedial line; orbicular and reniform defined by black, the former round, the latter elliptical; an indistinct blackish medial shade; postmedial line double, the outer line obsolescent on the white area, strongly bent outwards below costa, then sinuous, excurved to vein 4, then incurved, some slight whitish points beyond it on costa; subterminal line whitish, defined on inner side by black suffusion except on the white area where it is obsolescent, angled outwards at vein 7 and excurved at middle; a terminal series of minute black

lunules; cilia black and white on apical half, mostly white towards tornus. Hind wing white suffused with brown; cilia white with a fuscous line through them; the underside ochreous white irrorated with fuscous, a small discoidal spot, curved minutely waved postmedial line, and terminal series of small black lunules.

Hab. Transvaal, Johannesburg (*Cooke*), 1 ♀ type. *Exp.* 24 millim.

5805. Lithacodia larentiformis. (Plate CLXV. fig. 1.)

Erastria cidarioides, Moore, Lep. Atk. p. 142 (1882), nec id. p. 110, pl. iv. f. 9.

Erastria larentiformis, Hmpsn. Moths Ind. ii. p. 301 (1894).

♀. Head and thorax blackish mixed with red-brown and grey; tarsi banded black and white; abdomen grey mixed with fuscous, the crests blackish. Fore wing black-brown mixed with rufous and grey, the postmedial area white from vein 6 to inner margin; antemedial line black defined on inner side by ochreous below costa and cell and by white from submedian fold to inner margin, waved; orbicular and reniform with faint grey annuli defined by black, the former round, the latter somewhat constricted at middle; an indistinct sinuous black line from lower angle of cell to inner margin; postmedial line double, black filled in with ochreous towards costa and with white below vein 6, oblique from costa to vein 6 where it is angled outwards, slightly angled outwards at veins 4, 3, then incurved, some whitish points beyond it on costa; subterminal line white defined on inner side by black towards costa and with a short black streak before it below vein 4, excurved below vein 7 and at middle; terminal area brown, blackish at apex; a terminal series of black striæ; cilia fuscous with a white line through them. Hind wing whitish almost wholly suffused with fuscous brown; a terminal series of black striæ slightly defined by white on inner side; cilia whitish with a series of fuscous points at tips; the underside white irrorated with fuscous, the terminal area faintly tinged with purplish pink, a black discoidal spot and minutely waved excurved postmedial line slightly angled at discal fold.

Hab. Sikhim (*Lidderdale, Atkinson*), 3 ♀ type. *Exp.* 30 millim.

*5806. Lithacodia glaucopis. (Plate CLXV. fig. 2.)

Erastria glaucopis, Hmpsn. Moths Ind. ii. p. 302 (1894).

♀. Head and thorax ochreous white tinged with rufous in front; fore tibiæ and tarsi brownish, the latter ringed with white; abdomen ochreous white irrorated with brown. Fore wing grey-white tinged in parts with ochreous, the costal area suffused with black-brown narrowing to apex, the medial area suffused with black-brown; an indistinct waved dark antemedial line; claviform absent; orbicular represented by a diffused blackish patch, the reniform by a rounded

grey patch slightly defined on inner side by black, undefined on outer; postmedial line indistinctly double filled in with whitish, slightly bent outwards below costa, then minutely dentate, excurved to vein 4, then incurved, some pale points beyond it on costa, the dark costal area beyond it tinged with rufous at middle; subterminal line represented by a grey striga from costa on the dark area; a small round black spot on termen below vein 4; cilia with a brown line at middle and some black scales at tips beyond the terminal spot. Hind wing reddish brown; the cilia whitish with a brown line through them from apex to vein 2; the underside whitish slightly irrorated with brown, a brown discoidal lunule, curved crenulate postmedial line, and terminal series of small lunules.

Hab. Sikhim (*Möller*), type † ♀ in Coll. Rothschild. *Exp.* 24 millim.

5807. Lithacodia fasciana.

Tortrix fasciana, Linn. Faun. Suec. p. 342 (1761); Staud. Cat. Lep. pal. p. 231.

Noctua strigilis, Schäff. Icones, Ins. ii. pl. 179. ff. 4, 5 (1769), nec Clerck.

Noctua fuscula, Schiff. Wien. Verz. p. 89 (1776); Borkh. Eur. Schmett. iv. p. 192 (1792); Hübn. Eur. Schmett., Noct. f. 297 (1802); Dup. Lép. Fr. vii. pt. i. p. 370. pl. 123. f. 1; Steph. Ill. Brit. Ent., Haust. iii. p. 119; Curt. Brit. Ent. p. 356.

Noctua polygramma, Esp. Schmett, iv. pl. 146. f. 7 (1790).

Noctua praeinsueta, Borkh. Eur. Schmett. iv. p. 175 (1792).

Bryophila guenei, Fallou, Ann. Soc. Ent. Fr. 1864, pp. 27, 688, pl. 1. f. 3

Head and thorax blackish mixed with white and some red-brown; tarsi whitish banded with black; abdomen blackish mixed with white, the dorsal crests black. Fore wing olive-brown mixed with red-brown, grey and black, the postmedial and terminal areas whitish except towards costa: subbasal line indistinct, blackish, defined on outer side by whitish, waved, from costa to vein 1; antemedial line double filled in with whitish, waved, rather oblique; claviform defined by whitish and black at extremity; orbicular and reniform with whitish annuli defined by black, the former round, the latter with slight white lunule in centre, some black in cell between them and beyond lower extremity of latter; an oblique waved black line from lower angle of cell to inner margin; postmedial line black slightly defined on outer side by whitish towards costa, bent outwards below costa, then minutely waved, excurved to vein 4, then incurved, some whitish points beyond it on costa, subterminal line white, defined on inner side by a black patch on costal area, then by some olive suffusion, angled outwards at vein 7, excurved and minutely waved at middle; a terminal series of small black lunules, obsolescent towards tornus; cilia chequered brown and white at tips. Hind wing whitish wholly suffused with brown; a fine dark terminal line; cilia white with a dark line at middle and series of brown spots at tips from apex to vein 2; the underside white irrorated with brown, the apical area tinged with rufous,

a small dark discoidal spot and indistinct curved minutely waved postmedial line.

Ab. 1. *guenei*. Fore wing with the postmedial and terminal areas not white.

Hab. Britain, Leech Coll.; France, Leech Coll.; Germany, Zeller and Frey Colls.; Austria; Hungary; Switzerland, Frey Coll.; Spain, Catalonia, Bilbao; Portugal; Corsica; Italy; Denmark; Russia; Armenia; Asia Minor, Bithynia; Persia, 1 ♂, 1 ♀; W. Siberia, Altai; E. Siberia, Ussuri; Japan, Nagasaki (*Leech*), 1 ♂, Oiwake (*Pryer*), 1 ♂, Nikko (*Maries*, *Jonas*), 2 ♂, 1 ♀; Corea. *Exp.* 24–30 millim.

Larva. Meyr. Brit. Lep. p. 164; Barrett, Lep. Brit. vi. p. 202, pl. 248. f. 2.

Pale yellowish; dorsal line reddish or greenish; subbasal line brown; lateral line reddish or greenish; spiracular line reddish; head pale yellow irrorated with red. Food-plant: *Molinia cærulea*. 8–9.

5808. Lithacodia stygia.

Erastria stygia, Butl. A. M. N.H. (5) i. p. 199 (1878); id. Ill. Het. B. M. iii. p. 20, pl. 46. f. 2; Staud. Cat. Lep. pal. p. 231.

Head and thorax black mixed with some brown and white; tarsi banded black and white; abdomen fuscous and white, the crests blackish. Fore wing black-brown with some red and white scales mixed, the postmedial area below vein 3 and the terminal area below vein 5 with more white; subbasal line blackish slightly defined by white on inner side, waved, from costa to submedian fold; antemedial line indistinct, slightly defined by white on inner side, oblique, waved; claviform faintly defined by black and white at extremity; orbicular and reniform small, with white annuli defined by black, the former round, the latter constricted at middle; an indistinct curved medial line; postmedial line defined by white on outer side, strongly at costa and below vein 4, bent outwards below costa, then waved, incurved below vein 4 and excurved at vein 1, some white points beyond it on costa; subterminal line whitish, excurved below vein 7 and at middle; a terminal series of small black lunules, defined on inner side by white except at apex; cilia with a dark line at middle, chequered fuscous and white at tips. Hind wing fuscous brown; cilia whitish with a dark line at middle and chequered with fuscous at tips; the underside white irrorated with fuscous, the costal and terminal areas tinged with purplish red, a small discoidal spot, postmedial series of minute streaks on the veins, and terminal series of striæ.

Hab. Japan, Kiushiu, 1 ♂, Tokio (*Maries*), 2 ♂, 1 ♀, Yokohama (*Jonas*, *Pryer*), 4 ♂, 4 ♀ type; Corea, Gensan (*Leech*), 1 ♂, 2 ♀; C. China, Ichang (*Hobson*), 1 ♀; W. China, Chow-pin-sa, 1 ♂, 1 ♀. *Exp.* 24–32 millim.

5809. Lithacodia muscosula. (Plate CLXV. fig. 3.)

Erastria muscosula, Guen. Noct. ii. p. 230 (1852); Smith, Cat. Noct. N. Am. p. 311.

♂. Head and thorax white mixed with black-brown; palpi with the 2nd and 3rd joints black, white at tips; fore tarsi banded with black; abdomen white irrorated with brown, the crests blackish. Fore wing white mostly suffused with olive-green and irrorated with black, the postmedial area white except towards costa, the terminal area white tinged with fuscous; subbasal line represented by blackish striæ from costa and cell; antemedial line indistinctly double filled in with white, oblique, waved; claviform defined by white at extremity; orbicular and reniform with white annuli, the former round, the latter constricted at middle; some black suffusion between them and a black spot on costa; an oblique sinuous line from lower angle of cell to inner margin; postmedial line double filled in with white, bent outwards below costa, slightly incurved at discal fold, incurved below vein 4, some white points beyond it on costa; subterminal line white, excurved below vein 7 and at middle; a terminal series of black striæ; cilia with a dark line through them. Hind wing white, the inner half slightly suffused with brown; a terminal series of blackish striæ and dark line through the cilia; the underside white irrorated with a few black scales, a black discoidal spot and indistinct postmedial line excurved from below costa to vein 3.

♀. Hind wing more uniformly tinged with brown.

Hab. Canada (*Norman*), 1 ♂, Renfrew Co., 1 ♀; U.S.A., Eastern, Middle, and Central States, New York (*Packard*, *Grote*), 2 ♂, 5 ♀, Evans Center (*Grote*), 1 ♂, Trenton Falls (*Doubleday*), 1 ♂, Distr. of Columbia, Ohio, 2 ♀. *Exp.* 26–30 millim.

5810. Lithacodia falsa. (Plate CLXV. fig. 4.)

Miana falsa, Butl. Cist. Ent. iii. p. 132 (1885).

Head and thorax black-brown mixed with white; antennæ ringed black and white; fore tarsi fuscous ringed with white; abdomen whitish suffused with brown, the crests blackish. Fore wing black irrorated with white, the postmedial area below vein 3 and the terminal area below vein 5 whiter; subbasal line indistinct, from costa to submedian fold; antemedial line indistinct, slightly defined by white on inner side, waved; orbicular and reniform with white annuli, the former round, the latter figure-of-8-shaped; traces of a diffused black medial line; postmedial line double filled in with white, bent outwards below costa, then minutely waved, excurved to vein 4, then incurved, some white points beyond it on costa; subterminal line whitish, angled inwards below costa, excurved below vein 7 and at middle; a terminal series of black striæ; slightly

defined by white on inner side. Hind wing whitish suffused with fuscous brown; a slight dark terminal line; cilia whitish; the underside white slightly irrorated with fuscous, a dark discoidal spot, curved postmedial series of minute streaks on the veins, and terminal series of striæ.

Ab. 1. Fore wing more ochreous brown and without white suffusion beyond postmedial line.

Hab. Japan, Hakone (*Leech*), 2 ♀, Yokohama (*Pryer, Manley*), 5 ♂, 4 ♀ type; C. China, Shanghai (*Pryer*), 1 ♀. *Exp.* 24–30 millim.

5811. Lithacodia atrata.

Erastria atrata, Butl. Trans. Ent. Soc. 1881, p. 188; Staud. Cat. Lep. pal. p. 231.
Erastria sidemiata, Oberth. Ét. Ent. x. p. 25, pl. iii. f. 6 (1884).

Head and thorax dark brown slightly mixed with grey; pectus and legs paler, the tarsi brown ringed with white; abdomen brown mixed with greyish. Fore wing dark greyish brown with a slight cupreous gloss; traces of a dark subbasal line from costa to submedian fold; antemedial line brown, minutely waved, oblique; orbicular very indistinctly defined by brown, small, round; reniform a narrow white lunule indistinctly defined by brown with some white points beyond it and white suffusion above it on costa; traces of an oblique sinuous medial line from lower angle of cell to inner margin; postmedial line dark defined on outer side by white towards costa and inner margin and by white points on the veins at middle, bent outwards below costa, then dentate, incurved below vein 4, some white points beyond it on costa; subterminal line represented by a minutely dentate white bar from costa, then by slight dentate dark marks, excurved below vein 7 and at middle; a terminal series of slight dark lunules; cilia with a fine pale line at base and some whitish at tips. Hind wing greyish suffused with cupreous brown; cilia whitish with a brown line through them; the underside whitish irrorated with brown, a dark discoidal spot, indistinct curved postmedial line, and fine terminal line.

Hab. E. Siberia, Ussuri, 1 ♀; Japan, Oiwake (*Pryer*), 3 ♂, 1 ♀, Tokio (*Maries*), 1 ♀ type, Yokohama (*Pryer*), 1 ♀. *Exp.* 26–28 millim.

5812. Lithacodia distinguenda.

Erastria distinguenda, Staud. Stett. Ent. Zeit. xlix. p. 265 (1888); id. Rom. Mém. vi. p. 564, pl. 11. f. 2; id. Cat. Lep. pal. p. 231.

Head and thorax fuscous brown mixed with white; tarsi banded brown and white; abdomen brown and white with white segmental rings, the crests blackish. Fore wing brown with some rufous and white scales mixed; subbasal line represented by blackish striæ from costa and cell; antemedial line blackish,

sinuous; claviform defined by black and white at extremity; orbicular and reniform with white annuli defined at sides by black, the former round, the latter open above and below and somewhat constricted at middle, a black streak between them in lower part of cell; medial line represented by an oblique striga from costa and oblique sinuous line from lower angle of cell to inner margin; postmedial line blackish slightly defined by white on outer side, bent outwards below costa, slightly incurved at discal fold, incurved and sinuous below vein 4, some white points beyond it on costa; subterminal line white with black streaks before it in the interspaces below costa and at middle, excurved below vein 7 and at middle and angled inwards at discal and submedian folds; a terminal series of small black lunules slightly defined by white on inner side, the mark below vein 4 forming a short black streak; cilia with dark line at middle, chequered brown and white at tips. Hind wing cupreous brown, the cilia with brown line through them; the underside white irrorated with brown, a small discoidal spot, and curved rather punctiform postmedial line.

Hab. E. Siberia, Ussuri; Japan, Kiushiu, 1 ♂, Nagasaki (*Leech*), 1 ♂, Shimonoseki (*Leech*), 1 ♀, Yokohama (*Pryer*), 1 ♂, 1 ♀; Corea, Gensan (*Leech*), 1 ♂; C. China, Ichang (*Mrs. Pratt*), 1 ♀. *Exp.* 24–26 millim.

5813. Lithacodia syggenes, n. sp. (Plate CLXV. fig. 5.)

♂. Head and thorax black mixed with some grey and reddish; pectus, legs, and abdomen ochreous white mixed with fuscous, the tarsi banded with blackish. Fore wing black-brown mixed with grey, ochreous, and rufous; subbasal line represented by a black striga from costa; antemedial line double, black filled in with greyish, erect, sinuous; claviform represented by an oblique black and grey striga at its extremity; orbicular with brown centre and greyish annulus defined by black, its lower extremity rather produced; reniform whitish obscurely defined by black, its centre defined by brown and with a black mark near inner edge, slightly angled inwards on median nervure; traces of a diffused incurved blackish line from lower angle of cell to inner margin; postmedial line double filled in with ochreous and defined on outer side by ochreous and white from vein 4 to inner margin, bent outwards below costa, then minutely waved, excurved to vein 4, then incurved, some whitish striæ beyond it from costa; subterminal line whitish, excurved below vein 7, angled inwards at discal fold, then excurved and waved; a terminal series of minute black lunules; cilia blackish at base, chequered black and yellowish at tips. Hind wing yellowish white irrorated with a few black scales; a small discoidal spot, curved postmedial line, and terminal series of slight lunules; cilia whitish mixed with blackish and with black line through them; the underside whitish irrorated with black-brown.

the terminal area tinged with rufous, the discoidal black spot larger, the postmedial line crenulate, an indistinct diffused subterminal line.

Hab. S.E. Peru, Agualani (*Ockenden*), 2 ♂ type. *Exp.* 26 millim.

5814. Lithacodia onytes. (Plate CLXV. fig. 6.)

Tarache onytes, Schaus, Trans. Am. Ent. Soc. xxi. p. 240 (1894).

♂. Head and thorax black-brown mixed with some white; tarsi ringed with white; abdomen white irrorated with brown, the crests black, the ventral surface blackish. Fore wing black-brown with a bronze gloss and irrorated with white; subbasal line represented by a whitish point on costa; antemedial line indistinct, whitish, oblique, sinuous; claviform represented by a small white spot defined by black at its extremity; orbicular and reniform with faint whitish annuli incompletely defined at sides by black, the former oblique, the latter angled inwards on median nervure; traces of an oblique line from lower angle of cell to inner margin; postmedial line double filled in with whitish, bent outwards below costa, then minutely waved, excurved to vein 4, then oblique, some whitish points beyond it on costa; subterminal line indistinct, whitish, slightly defined on each side by blackish, excurved below vein 7 and at middle; a terminal series of slight black lunules; cilia black-brown mixed with whitish and with a dark line through them. Hind wing white irrorated with reddish brown especially on terminal area, a slight discoidal bar, postmedial line excurved to vein 4, then oblique, and dark terminal line; cilia white with a dark line through them; the underside thickly irrorated with brown, a dark discoidal spot and evenly curved postmedial line.

Hab. Brazil, Castro Paraña (*D. Jones*), 1 ♂. *Exp.* 28 millim.

5815. Lithacodia confusa. (Plate CLXV. fig. 7.)

Erastria confusa, Leech, Trans. Ent. Soc. 1900, p. 143.

♀. Head and thorax ochreous mixed with red-brown; tarsi brown with pale rings; abdomen ochreous mixed with brown, the crests blackish. Fore wing red-brown irrorated with greyish ochreous, the medial area except towards costa and the postmedial area rather darker; antemedial line dark, defined on inner side by greyish, erect, waved; orbicular with greyish annulus slightly defined by brown, round; reniform greyish slightly defined by brown, its centre also defined by brown; medial line oblique from costa to reniform, oblique and sinuous from lower angle of cell to inner margin; postmedial line double filled in with whitish, bent outwards below costa, then minutely waved, excurved to vein 4, then incurved, some pale points beyond it on costa; subterminal line greyish defined on inner side by dark brown, angled outwards at

vein 7 and excurved at middle, a terminal series of minute dark lunules; cilia greyish ochreous with a dark line at middle, the tips chequered with brown. Hind wing whitish suffused with red-brown except on costal area; a fine brown terminal line; cilia whitish with a slight brown line near base; the underside whitish irrorated with red-brown, a dark discoidal point and traces of curved minutely waved postmedial and subterminal lines.

Hab. W. China, Pu-tsu-fang, 2 ♀ type. *Exp.* 30 millim.

*5816. Lithacodia clandestina. (Plate CLXV. fig. 8.)

Erastria clandestina, Turner, P. Linn. Soc. N. S. W. xxxiv. p. 349 (1909).

♂. Head and thorax red-brown with a cupreous gloss; pectus whitish; abdomen whitish mixed with red-brown, the crests red-brown. Fore wing red-brown with a cupreous gloss; subbasal line represented by a red-brown striga from costa; antemedial line double, angled outwards in cell, then sinuous; orbicular and reniform with slight whitish annuli, the former round, the latter elliptical, an oblique whitish streak from it to termen at vein 4; an indistinct sinuous medial line; postmedial line double filled in with whitish, strongly bent outwards below costa, incurved and slightly waved below vein 4; subterminal line slight, whitish, angled outwards to termen at veins 7, 6, 4, 3 and incurved at discal and submedian folds; a terminal series of red-brown striæ with white points at the veins. Hind wing greyish suffused with red-brown; a terminal series of red-brown striæ with white points at the veins; cilia pale rufous; the underside whitish irrorated with red-brown, a brown discoidal point.

Hab. Queensland, Kuranda (*Dodd*), type† ♂ in Coll. Turner. *Exp.* 16 millim.

5817. Lithacodia brunnea.

Erastria brunnea, Leech, P. Z. S. 1889, p. 527, pl. 53. f. 2.

Head, thorax, and abdomen ochreous white mixed with red-brown; palpi blackish at sides; fore tibiæ and tarsi blackish with pale rings; abdomen with the basal crests blackish. Fore wing ochreous white irrorated and suffused with red-brown; subbasal line represented by slight black points on costa and in cell; antemedial line very indistinct, whitish defined by brown on inner side, waved, oblique from costa to submedian fold; claviform faintly defined by whitish at extremity; orbicular and reniform with whitish annuli, the former round, the latter filled in with brown and somewhat dilated below; an oblique brown medial shade from costa to median nervure; some brown suffusion beyond the cell and a brownish streak in submedian fold on medial area; postmedial line white defined on outer side by dark brown, oblique from costa to vein 6, then minutely waved, incurved below vein 4, some whitish points beyond it on costa; an apical patch of dark

suffusion; subterminal line white defined on inner side by small dark marks from vein 5 to inner margin, excurved below vein 7 and at middle; a terminal series of small blackish lunules slightly defined by whitish on inner side; cilia ochreous, dark at tips. Hind wing ochreous wholly suffused with reddish brown; cilia ochreous white; the underside ochreous white irrorated with brown, a slight discoidal point and terminal series of points.

Hab. Japan, Yokohama (*Manley*, *Pryer*), 2 ♂, 6 ♀ type. *Exp.* 18–24 millim.

5818. Lithacodia numisma.

Erastria numisma, Staud. Stett. Ent. Zeit. xlix. p. 265 (1888); id. Rom. Mém. vi. p. 564, pl. xi. f. 3; id. Cat. Lep. pal. p. 231.
Erastria olivacea, Leech, P. Z. S. 1889, p. 526, pl. 53. f. 1.

Head, thorax, and abdomen yellowish white mixed with olive-brown and blackish; palpi black at sides, the 3rd joint yellow with a black band; tarsi black with pale rings; abdomen with pale segmental lines, the crests blackish. Fore wing yellowish white suffused with olive-brown, especially on medial and postmedial areas, and irrorated with black; subbasal line represented by a yellowish striga from costa; antemedial line blackish defined on inner side by pale yellow, interrupted below costa, and angled inwards at vein 1; claviform and orbicular with white annuli defined by black, confluent at median nervure and forming a figure-of-8-shaped mark; reniform with yellowish centre defined by blackish and white annulus defined by black, constricted at middle; a diffused medial black patch on costa and shade from vein 2 to inner margin; postmedial line black defined by whitish on outer side, bent outwards below costa, then minutely waved, excurved to vein 4, then incurved, some white points beyond it on costa; a blackish apical patch; subterminal line white, minutely dentate, angled outwards at vein 7 and excurved at middle; a terminal series of slight dark striæ; cilia yellow with blackish tips and with dark patches with black lines through them at apex and middle. Hind wing golden brown; the cilia yellowish white with a dark line through them and blackish points at tips from apex to vein 2; the underside yellowish white irrorated with brown, a dark discoidal spot, curved minutely waved postmedial line, and fine black terminal line.

Hab. E. Siberia, Ussuri; Japan, Oiwake (*Pryer*), 2 ♂ type *olivacea*, Yokohama (*Manley*), 2 ♂, 1 ♀; Corea, Gensan (*Leech*) 2 ♀. *Exp.* 20–26 millim.

5819. Lithacodia nivata. (Plate CLXV. fig. 9.)

Erastria nivata, Leech, Trans. Ent. Soc. 1900, p. 141.

Head and thorax white mixed with dark brown; palpi blackish white at base; tarsi black ringed with white; abdomen ochreous

white tinged with brown, the crests blackish. Fore wing white mostly suffused with olive-brown and irrorated with black; subbasal line represented by a slight white striga from costa; a white fascia on median nervure expanding into a patch above vein 2; antemedial line black defined by white on inner side, oblique, waved; claviform white with slight brown centre, defined by black except above where it is confluent with the white fascia; orbicular with brown centre and white annulus defined by black on outer side, round; reniform white with some olive in centre, defined by black at sides, constricted at middle; a blackish patch on middle of costa and oblique waved line from lower angle of cell to inner margin; postmedial line black with slight white streaks before it on the veins, slightly bent outwards below costa, then dentate, excurved to vein 4, then incurved, some white points beyond it on costa and a white band, dentate below vein 6 and defining the black lunules on inner side of the slight white subterminal line which is angled outwards at vein 7 and excurved at middle; a large black apical patch and some blackish at middle of termen; a terminal series of minute black lunules; cilia white with series of black spots at tips and some blackish at apex, middle, and tornus. Hind wing whitish suffused with brown; a fine dark terminal line; cilia white with a brown line through them and brown spots at tips; the underside white irrorated with olive-brown, a black discoidal spot and curved minutely waved postmedial line.

Hab. W. China, Chang-yang (*Pratt*), 1 ♂, 1 ♀ type. *Exp.* 28 millim.

*5820. **Lithacodia penthis.** (Plate CLXV. fig. 10.)

Eustrotia penthis, Schaus, Trans. Am. Ent. Soc. xxx. p. 154 (1904).

♂. Head black-brown, the frons and vertex with whitish patches; palpi ochreous at base and at base of 3rd joint; thorax ochreous, the tegulæ with blackish medial band, the upper edge of patagia and prothoracic crest blackish; fore tibiæ and tarsi banded with brown; abdomen ochreous irrorated with black, the crests black. Fore wing olive-brown suffused with black; an elliptical ochreous patch on inner area from base of costa to middle, defined by black suffusion above and with fuscous mark on inner margin near base; traces of a waved black antemedial line; orbicular ochreous defined by black, small and rather elliptical; reniform white defined by black and with some ochreous in centre, angled inwards on median nervure; an indistinct sinuous black medial line; postmedial line double filled in with whitish, strongly bent outwards below costa, then minutely waved, excurved to vein 4, then incurved; the postmedial area without black suffusion except on costal area and with some whitish points on costa; subterminal line white, rather diffused towards inner margin, minutely dentate, defined on outer side by rather dentate black marks between veins

5 and 2; a terminal series of black striæ; cilia white at base, brown at tips. Hind wing pale ochreous tinged with brown; a slight brown terminal line; cilia white at base, brown at tips; the underside ochreous white irrorated with brown, a brown discoidal lunule and diffused curved postmedial line.

Hab. Mexico, Guadalajara (*Schaus*), type † ♂ in U.S. Nat. Mus. *Exp.* 24 millim.

*5821. Lithacodia binorbis. (Plate CLXV. fig. 11.)

Erastria binorbis, Hmpsn. Ann. S. Afr. Mus. ii. p. 379 (1902).

♀. Head and thorax white, the base of tegulæ and tips of patagia and metathorax blackish; palpi black, the extremity of 2nd joint whitish; fore tibiæ and tarsi black ringed with white; abdomen ochreous mixed with red-brown, the crests blackish. Fore wing white tinged with rufous and irrorated with purplish fuscous; some purplish on base of inner margin; subbasal line black, curved, from costa to vein 1; antemedial line black, double on inner area, angled outwards below costa and excurved below cell; claviform defined by black; orbicular and reniform whitish defined by black, the former elongate elliptical, the latter oblique elliptical; an oblique purplish fuscous medial shade; postmedial line double except on inner area, bent outwards below costa, oblique to discal fold, then incurved and outwardly oblique to inner margin, some whitish points with slight black streaks between them beyond it on costa; subterminal line whitish, angled outwards at vein 7 and excurved at middle; a terminal series of black striæ; cilia chequered greenish and black. Hind wing red-brown; cilia yellowish white mixed with brown; the underside whitish irrorated with brown, a slight discoidal point, curved minutely waved postmedial line, and diffused subterminal line.

Hab. Cape Colony, Transkei (*Miss F. Barrett*), 1 ♀ type *Exp.* 26 millim.

5822. Lithacodia euchroa, n. sp. (Plate CLXVIII. fig. 2.)

♀. Head and thorax ochreous white tinged with yellow-brown the metathorax with dark brown patch; 2nd joint of palpi behind and antennæ dark brown; tarsi dark brown with slight whitish rings; abdomen reddish brown with pale segmental rings, the ventral surface pale at base. Fore wing ochreous whitish almost entirely suffused with yellow-brown; a pale patch at base of inner margin followed by a dark brown patch; a faint pale waved subbasal line from costa to submedian fold; antemedial line whitish defined on outer side by dark brown except towards costa, slightly sinuous, erect; claviform defined by blackish at extremity, with a small white lunule beyond it; a conical dark brown patch from middle of costa, with a triangular whitish patch before it from

costa to median nervure; reniform silvery grey-white slightly defined by dark brown and with dark striga in centre, narrow; postmedial line double, brown filled in with whitish towards costa, bent outwards below costa, excurved to vein 4, then bent inwards to lower edge of reniform and slightly waved to inner margin, some white points beyond it on costa; subterminal line white, slightly excurved below vein 7 and more strongly at middle, a dark patch beyond it at discal fold; a terminal series of small triangular dark brown spots. Hind wing whitish, the terminal half suffused with cupreous brown; an indistinct dark discoidal lunule; cilia paler with a whitish line at base; the underside whitish, the costal area and terminal area to vein 2 irrorated with red-brown, a dark brown discoidal lunule, waved postmedial line bent outwards below costa and inwards at vein 2, and a terminal series of brown lunules defined on inner side by white from apex to vein 2.

Hab. Dutch N. Guinea, Fak-fak (*Pratt*), 1 ♀ type. *Exp.* 22 millim.

*5823. Lithacodia valta. (Plate CLXV. fig. 12.)

Eustrotia valta, Schaus, Trans. Am. Ent. Soc. xxx. p. 153 (1904).

♂. Head and thorax ochreous tinged with rufous and mixed with some dark brown, especially on thorax behind; palpi banded with blackish; frons with lateral blackish bars; tarsi fuscous with pale rings; abdomen ochreous whitish irrorated with brown, the crests black. Fore wing bluish grey suffused in parts with rufous and black; antemedial line grey defined on inner side by a slight fuscous line and on outer by a black band, curved and minutely waved, the black band ending at vein 1 in a wedge-shaped black mark below the claviform, which is defined above and at extremity by white produced as a point to postmedial line, with some black suffusion above it; orbicular white defined by black and with slight rufous centre, round, a diffused oblique brown bar from it to costa; reniform with rufous centre and slight whitish annulus incompletely defined by black, slightly angled inwards on median nervure; postmedial line double, black filled in with white, obsolescent towards costa, bent outwards below costa, slightly angled inwards at discal fold, oblique from vein 4 to submedian fold and very slightly excurved at vein 1, some whitish points beyond it on costa; subterminal line white with oblique black bar beyond it from apex, defined on inner side by slight black streaks below costa, with wedge-shaped black mark before it above vein 6 and spot below it and dentate black marks at middle, angled outwards at vein 7, inwards in discal fold, and outwards at veins 4, 3; a terminal series of minute black lunules slightly defined by whitish on inner side; ciliia brown at base, chequered blackish and white at tips. Hind wing reddish brown; a terminal series of blackish striae; cilia pale rufous at base, white with blackish points at tips; the underside

white irrorated with blackish, a black discoidal spot with diffused bar above it from costa, a curved minutely waved postmedial line, and diffused rufous oblique shade from apex.

Hab. Mexico, Guadalajara (*Schaus*). type † ♂ in U.S. Nat. Mus. *Exp.* 30 millim.

5824. Lithacodia cœnia. (Plate CLXV. fig. 13.)

Metachrostis cœnia, Swinh. A. M. N. H. (7) vii. p. 471 (1901).

♀. Head and thorax ochreous white mixed with reddish brown; palpi and legs with black scales mixed, the tarsi ringed with white; abdomen ochreous white with fuscous bands, the crests blackish. Fore wing ochreous suffused with rufous, deeper on costal area, the medial area suffused with black from costa to median nervure; subbasal line represented by black points on costa and median nervure and a slight streak below vein 1; antemedial line whitish defined on each side by diffused rufous, minutely waved, oblique from costa to submedian fold, then erect; an oblique black streak defined on inner side by white from costa to submedian fold where it is slightly angled inwards, representing the outer edge of orbicular and claviform; reniform greyish defined by black, constricted at middle, and with slight black streaks beyond its lower extremity; traces of an oblique rufous line from lower angle of cell to inner margin; postmedial line double filled in with white, oblique from costa to vein 6, then minutely waved, incurved below vein 4, some whitish points with minute black streaks between them beyond it on costa; subterminal line white with two small wedge-shaped black marks before it at middle, excurved below vein 7 and at middle; some minute dark striæ on termen; cilia pale yellow with slight fuscous points at tips from below apex to vein 3. Hind wing ochreous white; the basal area suffused with brown; a blackish discoidal point, traces of a curved postmedial line, diffused subterminal band, and terminal series of minute black lunules; the underside yellowish irrorated with fuscous, a black discoidal spot and curved postmedial line.

Hab. Sikhim (*Dudgeon*), 1 ♀; Assam, Khásis, 1 ♀, Jaintia Hills, 1 ♀ type. *Exp.* 26 millim.

5825. Lithacodia squalida.

Erastria squalida, Leech, P. Z. S. 1889, p. 527, pl. 52. f. 9.

Head, thorax, and abdomen pale red-brown, the head and tegulæ with dark brown scales mixed; legs mostly dark brown, the tarsi with slight pale rings; abdomen with the crests tipped with blackish. Fore wing pale red-brown mixed with greyish, the costal area rather darker except at apex; subbasal line represented by a slight pale striga from costa; antemedial line indistinct, defined by whitish on inner side, angled outwards on median

nervure, then inwardly oblique and slightly excurved above inner margin; claviform absent; orbicular hardly defined except by an oblique white bar on its outer edge; reniform incompletely defined by black, constricted at middle; some black suffusion in cell between the stigmata and as a short diffused streak beyond the reniform in discal fold; an incurved blackish shade from lower angle of cell to inner margin; postmedial line indistinctly double filled in with whitish, oblique and slightly sinuous to vein 6, incurved below vein 4, and slightly excurved at vein 1, some slight whitish points beyond it on costa; faint traces of a pale minutely waved subterminal line with minute blackish streak before it below costa; a terminal series of minute blackish lunules. Hind wing pale ochreous brown; cilia whitish with a brown line near base; the underside whitish irrorated with brown, a dark discoidal spot, curved minutely waved postmedial line, and terminal series of dark striæ.

Hab. Japan, Nagasaki (*Leech*), 1 ♂ type; Centr. China, Ning-po, 1 ♂, 1 ♀. *Exp.* 30 millim.

5826. Lithacodia picta. (Plate CLXV. fig. 14.)

Erastria picta, Hmpsn. Moths Ind. iv. p. 514 (1896).

♂. Head and thorax pale rufous with a few fuscous scales especially on shoulders and patagia; palpi black at sides, the tips of 2nd and 3rd joints white; antennæ and tarsi black ringed with white; abdomen pale rufous irrorated with fuscous, the crests tipped with black. Fore wing pale yellowish rufous, the costal area and vein 1 to middle, a patch on medial area below the cell, the extremity of median nervure and veins 6, 4, 3 to submedian line with leaden grey suffusion; antemedial line blackish, slightly angled inwards on median nervure, then oblique to inner margin near middle; claviform represented by a pinkish bar with a diffused dark streak beyond it; orbicular and reniform small, ill-defined, with some pinkish on them, the former round, the latter with a slight dark streak beyond it; postmedial line blackish defined by white on outer side, oblique and minutely sinuous to vein 6, angled inwards at discal fold, oblique below vein 4 and slightly incurved at submedian fold; an oblique olive-brown fascia from apex to postmedial line at discal fold; a white subterminal spot below discal fold with a blackish line defined on inner side by white from it to vein 2; cilia chequered reddish brown and white with a slight dark line near base. Hind wing ochreous yellow, the inner half irrorated with brown; traces of a sinuous postmedial line; dark marks on the extremities of veins 4, 3, 2; a fine dark terminal line; cilia with a dark line near base, the tips chequered white and brown; the underside with the basal half irrorated with fuscous, the costal and terminal areas tinged with rufous, a black discoidal spot and punctiform sinuous postmedial line.

Hab. Assam, Khásis, 1 ♂ type. *Exp.* 26 millim.

*5827. Lithacodia geoga. (Plate CLXV. fig. 15.)

Eustrotia geoga, Schaus, Pr. U.S. Nat. Mus. xxx. p. 103 (1906).

♀. Head and thorax grey-brown mixed with black-brown; pectus and legs whitish tinged with rufous; abdomen whitish tinged with rufous and irrorated with dark brown, the crests blackish. Fore wing grey thickly irrorated and suffused with black-brown; subbasal line black, waved, from costa to submedian fold; antemedial line blackish, oblique from costa to submedian fold and angled inwards on vein 1; claviform defined by blackish, elliptical; orbicular and reniform defined by blackish, the former small, round, the latter somewhat angled inwards on median nervure; an indistinct waved dark medial line; postmedial line black defined by reddish ochreous on outer side, strongly bent outwards below costa, then minutely sinuous, excurved to vein 4, then incurved; subterminal line slight, whitish defined on inner side by black-brown suffusion, angled outwards at veins 7, 6, inwards at discal fold, excurved at middle, then incurved; a terminal series of small black lunules; cilia with a fine pale line at base. Hind wing pale rufous; an indistinct curved postmedial line and fine terminal line; cilia whitish with a brown line near base; the underside whitish tinged with rufous and irrorated with brown, a brown discoidal spot, waved postmedial line, traces of irregular subterminal line, and terminal series of black striæ.

Hab. Mexico, Guadalajara (*Schaus*), type † ♀ in U.S. Nat. Mus. *Exp.* 22 millim.

5828. Lithacodia nana.

Cyphia nana, Hübn. Zutr. i. 14, ff. 53, 54 (1827); Smith, Cat. Noct. N. Am. p. 49.

♂. Head and thorax fuscous brown mixed with grey; pectus whitish, the tibiæ and tarsi fuscous ringed with white; abdomen pale brown with whitish segmental lines, the crests black. Fore wing greyish almost wholly suffused with brown and slightly irrorated with black; subbasal line slight, pale, from costa to submedian fold; antemedial line black defined on inner side by grey towards costa, incurved in cell and inwardly oblique below submedian fold; orbicular represented by a quadrate grey patch defined at sides by oblique black lines extending to costa; reniform defined on inner side by black, hardly defined on outer, extending to well below cell; postmedial line indistinct, double, filled in with grey, strongly bent outwards below costa, then minutely waved, excurved to vein 4, then incurved, some pale points beyond it on costa and a short black streak below the costa; subterminal line indistinct, greyish slightly defined on inner side by brown and the area beyond it somewhat browner, excurved below vein 7 and at middle and angled inwards at discal and submedian folds; a terminal

series of dark striæ slightly defined on inner side by grey. Hind wing greyish wholly suffused with red-brown; a slight dark terminal line; cilia paler; the underside whitish thickly irrorated with brown, a dark discoidal spot; indistinct curved postmedial line and diffused subterminal line.

Hab. U.S.A., Alabama, 1 ♂, Georgia. *Exp.* 22 millim.

5829. Lithacodia griseomixta.

Erastria griseomixta, Hmpsn. Monograph of Christmas I. p. 68, pl. ix. f. 5 (1900).

♀. Head and thorax grey-white mixed with brown; abdomen whitish dorsally suffused with brown, ventrally irrorated with brown. Fore wing grey-white irrorated and on postmedial area suffused with reddish brown; subbasal line brown, oblique to median nervure where it is angled and ending at submedian fold; antemedial line brown defined on inner side by white, excurved in cell and submedian interspace and angled inwards on median nervure and vein 1; claviform and orbicular absent; reniform represented by dark points at angles of cell; postmedial line white with a dark bar before it from costa, slightly bent outwards below costa, then oblique and minutely dentate to inner margin at antemedial line; subterminal line white defined on inner side by fuscous brown, slightly excurved below vein 7 and at middle, crossed by slight dark streaks towards apex and at middle; cilia chequered brown and white. Hind wing cupreous brown; the base whitish; cilia white mixed with brown; the underside with the costal area white irrorated with brown.

Hab. Christmas I. (*Andrews*), 1 ♀ type. *Exp.* 22 millim.

*5830. Lithacodia merta. (Plate CLXV. fig. 16.)

Palindia merta, Schaus, A. M. N. H. (7) viii. p. 38 (1901).

♀. Head and tegulæ dark brown mixed with some ochreous white; thorax ochreous white tinged with red-brown; pectus and legs dark brown, the tarsi ringed with white; abdomen with the basal half ochreous white tinged with rufous, the terminal half fuscous brown with slight whitish segmental lines, the ventral surface ochreous white. Fore wing with the basal half ochreous white tinged with rufous and with a large black-brown patch on basal costal area extending to submedian fold, the terminal half black-brown; subbasal line black, curved, from costa to submedian fold; antemedial line indistinctly double, blackish, irregularly waved, the lines rather far apart; medial line blackish, bounding the pale area, interrupted by short ochreous white streaks at subcostal and median nervures; reniform incompletely defined by black, constricted at middle; postmedial line indistinctly double, bent outwards below

costa, then minutely dentate and with slight whitish mark on it at discal fold, incurved below vein 4 to below end of cell, some whitish points beyond it on costa; subterminal line represented by slight black striæ faintly defined on outer side by grey, excurved below vein 7 and at middle and incurved at discal fold; a terminal series of minute white points. Hind wing dark brown with a cupreous tinge; traces of a waved whitish line just before termen with a series of white points on it; the underside slightly irrorated with white and with the inner area whitish, a brownish discoidal bar, and diffused postmedial line incurved below vein 3. Palpi with the 3rd joint long.

Hab. Brazil, Rio Janeiro, type † ♀ in U.S. Nat. Mus. *Exp.* 30 millim.

5831. **Lithacodia holophæa**, n. sp. (Plate CLXV. fig. 17.)

♂. Head, thorax, and abdomen dark brown slightly mixed with greyish, the last with the crests black; pectus and legs paler, the tarsi blackish with pale rings. Fore wing dark brown with a cupreous gloss, irrorated with a few silvery blue scales and with some red scales in submedian fold; subbasal line represented by a slight black striga from costa and streak below median nervure; antemedial line very indistinct, double, erect, sinuous; claviform represented by a black point at its extremity; orbicular and reniform indistinctly defined by black, the former round, a blackish patch between them extending to costa; an indistinct oblique sinuous line from lower angle of cell to inner margin; postmedial line indistinct, double, filled in with grey, bent outwards below costa, then very minutely waved, excurved to vein 4, then incurved and excurved in submedian fold, some pale points beyond it on costa; subterminal line indistinct, dark, minutely waved; a terminal series of slight black striæ; cilia pale at base, dark at tips. Hind wing pale suffused with cupreous brown; cilia whitish with a dark line through them; the underside whitish suffused and irrorated with brown, an indistinct discoidal lunule and curved postmedial line.

Hab. Assam, Nágas (*Doherty*), 1 ♂ type. *Exp.* 24 millim.

5832. **Lithacodia mirella.** (Plate CLXV. fig. 18.)

Thalpochares mirella, Schaus, Trans. Am. Ent. Soc. xxx. p. 162 (1904).
Thalpochares hippuramida, Druce, Biol. Centr.-Am., Het. i. p. 315 (part.).

Head, thorax, and abdomen fuscous brown with a greyish tinge; pectus and legs with some white scales, ventral surface of abdomen pure white. Fore wing fuscous brown with a cupreous gloss; an indistinct dark postmedial line faintly defined on outer side by whitish, oblique from costa to vein 6 and slightly incurved below vein 4, some white points beyond it on costa; traces of a pale sub-

terminal line with a small white spot at costa; cilia with some pale points at base towards apex and a white patch between veins 3 and 2. Hind wing uniform fuscous brown; the underside irrorated with whitish.

Abdomen of male with large lateral spiracles at base covered by valves.

Hab. Mexico, type† ♂ in U.S. Nat. Mus.; Guatemala, San Isidro (*Champion*), 1 ♀, Godman-Salvin Coll. *Exp.* 22 millim.

Genus **STENOCODIA**, nov.

Type, *S. purpurascens*.

Proboscis aborted, minute; palpi upturned, the 2nd joint reaching to about vertex of head and slenderly scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male with fascicles of long cilia; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with spreading crest; tibiæ slightly fringed with hair; abdomen with dorsal crest at base only. Fore wing long and narrow, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked, 10 from beyond 7; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from well above angle; 6, 7 from upper angle, 8 anastomosing with the cell near base only.

5833. Stenocodia purpurascens, n. sp.

♂. Head and thorax purplish red mixed with whitish; palpi with some blackish at sides; tarsi fuscous ringed with whitish; abdomen whitish tinged with red and irrorated with blackish. Fore wing purplish red mixed with yellowish; antemedial line indistinct, very oblique from costa to discal fold where it is angled acutely outwards, then very oblique inwardly to inner margin and slightly sinuous; postmedial line double filled in with pinkish, the outer

Fig. 151.—*Stenocodia purpurascens*, ♂.

line indistinct, bent outwards below costa, incurved at discal fold, oblique and minutely waved, some greyish points beyond it on costa; a terminal series of dark striæ defined by a waved greyish line; cilia red with dark brown tips. Hind wing whitish suffused with fuscous, the terminal area pale purplish; a blackish discoidal spot, indistinct curved postmedial line, and terminal series of striæ; cilia whitish at base, purplish at tips; the underside white, the costal

area and terminal area to vein 3 tinged with purplish pink, a black discoidal lunule and curved lunulate postmedial line.

Hab. Br. Guinea, St. Jean Maroni (*Schaus*), 1 ♂ type. *Exp.* 22 millim.

Genus HYPERSTROTIA, nov.

Type, *H. ætheria*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about vertex of head and moderately scaled, the 3rd short; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without distinct crests; tibiæ smoothly scaled; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3, 4 shortly stalked, 5 from just above angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

Sect. I. Fore wing with veins 10, 11 closely approximated towards base.

A. Fore wing with leaden-blackish subterminal marks ..... *molybdota.*
B. Fore wing without leaden-blackish subterminal marks.
  a. Fore wing with curved white band beyond postmedial line ..... *albicincta.*
  b. Fore wing with white or pale violaceous suffusion on postmedial area ..... *inordinata.*
  c. Fore wing without white or pale suffusion on postmedial area ..... *mecci.*

5834. Hyperstrotia molybdota, n. sp. (Plate CLXV. fig. 19.)

♂. Head, thorax, and abdomen ochreous suffused with brown. Fore wing whitish suffused with reddish brown; traces of a curved minutely waved antemedial line; reniform with faint whitish annulus, elliptical; the medial area with large chocolate-brown patch from discal fold to inner margin, angled outwards to postmedial line below the reniform, its inner edge curved to inner margin at postmedial line and its outer edge waved; postmedial line indistinct, whitish, oblique from costa to vein 6, strongly angled outwards at vein 3, then oblique, waved, some oblique whitish striæ beyond it from costa; an oblique, curved, leaden-blackish subapical mark with a rounded patch below it between veins 6 and 4 and a lunulate patch between veins 3 and 1; a terminal series of dark striæ. Hind wing ochreous suffused with brown; the underside paler, with traces of brown discoidal spot and diffused postmedial and subterminal lines.

Hab. Assam, Khásis, 1 ♂ type. *Exp.* 18 millim.

5835. Hyperstrotia albicincta.

Naranga albicincta, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 447 (1898).

♂. Head and tegulæ dark brown mixed with rufous; thorax and abdomen whitish mixed with some brown. Fore wing whitish

to near medial line, the costal area except towards base and the area just before medial line black-brown mixed with pale purplish; a waved black subbasal line from costa to median nervure; antemedial line represented by double very oblique black striæ from costa; a faint pale rufous discoidal bar; a diffused blackish medial shade, oblique from costa to below angle of cell; the medial area beyond the cell rufous mixed with violaceous white to the curved

Fig. 152.—*Hyperstrotia albicincta*, ♂. ½.

rufous postmedial line; postmedial area violaceous white; a rather diffused black-brown subterminal line expanding towards costa; terminal area rufous with a series of black striæ just before termen defined on inner side by white; cilia rufous mixed with blackish. Hind wing whitish suffused with red-brown; a fine dark terminal line; cilia ochreous; the underside whitish tinged and irrorated with brown, a brown discoidal spot, curved postmedial line, and diffused subterminal line.

Hab. Assam, Khásis, 1 ♂ type. *Exp.* 24 millim.

5836. Hyperstrotia inordinata. (Plate CLXV. fig. 20.)

Acontia inordinata, Wlk. Journ. Linn. Soc., Zool. vii. p. 50 (1864).
Tarache procrita, Swinh. A. M. N. H. (7) xvi. p. 621 (1905).

♀. Head and tegulæ red-brown, the frons and basal joint of antennæ in front pure white; thorax white mixed with red-brown; abdomen red-brown; pectus, legs, and ventral surface of abdomen ochreous brown, the tarsi dark brown ringed with white. Fore wing dark red-brown irrorated with blackish; the basal area suffused with white with blackish subbasal line, excurved below costa and ending at the blackish streak in base of submedian fold; antemedial line blackish, waved from costa to submedian fold, then incurved and with blackish band on its inner edge; a diffused white band beyond it, oblique from costa to lower angle of cell, then incurved; a V-shaped black mark on terminal part of median nervure and base of vein 2; a slight black discoidal lunule on a diffused white patch; postmedial line blackish defined on outer side by white, slightly bent outwards below costa and incurved below vein 4, some white points beyond it on costa; subterminal line white, slightly angled outwards below costa and at veins 6, 4, 3, 1, with black streaks beyond it in the interspaces from below apex to vein 4; a terminal series of black points; cilia grey-brown chequered with fuscous towards apex and with dark line towards tips. Hind wing dark reddish brown; the cilia with fine ochreous line at base; the

underside ochreous white tinged with brown, a brown discoidal lunule, curved postmedial line, and indistinct diffused subterminal line.

Ab. 1. Fore wing with the white areas tinged with violaceous.

Hab. Assam, Khasis, 2 ♀ type *procerita*; Siam, Biserat (*Annandale*), 1 ♀, Borneo, Sarawak (*Wallace*), type † ♀ in Mus. Oxon.; Bali (*Doherty*), 1 ♀. *Exp.* 22 millim.

*5837. Hyperstrotia meeci. (Plate CLXV. fig. 21.)

Rivula meeki, Beth.-Baker, Nov. Zool. xiii. p. 211 (1906).

♂. Head and tegulæ red-brown; thorax white mixed with dark brown; pectus and legs white tinged with brown, the fore tibiæ brown with white points, the tarsi brown ringed with white; abdomen reddish brown. Fore wing pale red-brown, the basal area with white mixed, the antemedial area with some chocolate-brown in cell, the medial area chocolate-brown in and below cell; an indistinct white subbasal line from costa to vein 1; antemedial line very indistinct, white, incurved in cell and ending at vein 1; orbicular represented by a white point; the reniform slightly defined by white, round; postmedial line white, defined on inner side by chocolate-brown, slightly excurved below vein 4, at middle, and vein 1; the postmedial area purplish fuscous irrorated with white between veins 6 and 1 and with some white points on costa; subterminal line white, almost obsolete towards costa, excurved at middle and incurved at vein 2, some dark streaks beyond it in the interspaces of apical area; a terminal series of small dark brown lunules defined on inner side by a waved white line; cilia pale brown and fuscous mixed. Hind wing pale reddish brown; cilia whitish tinged with yellow at base, brown at apex; the underside ochreous white, the apical area tinged with brown, an indistinct curved postmedial line and slight subterminal white line from apex to discal fold.

Hab. Br. New Guinea, Aroa R., (*Meek*), type † ♂ in Coll. Bethune-Baker. *Exp.* 22 millim.

Sect. II. Fore wing with veins 10, 11 widely separated.

A. Fore wing not uniform yellowish white.
  a. Fore wing with black spot on costa before antemedial line ..... *atheria.*
  b. Fore wing without black spot on costa before antemedial line.
    a^1. Fore wing not yellowish to postmedial line.
      a^2. Fore wing without elliptical yellowish white claviform ..... *oletta.*
      b^2. Fore wing with elliptical yellowish white claviform.
        a^3. Fore wing with the whole medial area suffused with rufous ..... *flavipuncta.*
        b^3. Fore wing with yellowish patch tinged with rufous on inner medial area ..... *macroplaga.*
    b^1. Fore wing yellowish to postmedial line ..... *semiochrea.*
B. Fore wing uniform yellowish white ..... *albida.*

5838. Hyperstrotia ætheria.

Thalpochares ætheria, Grote, N. Am. Ent. i. p. 47 (1879); Smith, Cat. Noct. N. Am. p. 313.

Head and thorax white mixed with brown, the head with blackish bands on frons and between antennæ, the tegulæ with brown medial band, the patagia black at base; tarsi blackish with slight pale rings; abdomen brown with whitish segmental lines, the ventral surface white. Fore wing white tinged in parts with rufous and irrorated with a few black scales, the inner area rufous to postmedial line where it is met by an oblique band from costa before apex, blackish to postmedial line then rufous; a subbasal black striga from costa and short streak in cell; a triangular black patch on costa before the antemedial line, which is black,

Fig. 153.—*Hyperstrotia ætheria*, ♂. ♀.

angled outwards in cell, then oblique, a triangular brown shade beyond it from costa; two black discoidal points; postmedial line black defined on outer side by white, bent outwards below costa and inwards below vein 4; subterminal line indistinct, white, excurved below vein 7 and at middle and ending at tornus; a terminal series of small black lunules. Hind wing whitish suffused with pale red-brown; the underside white irrorated with brown, a blackish discoidal lunule, curved postmedial line, diffused subterminal line, and terminal series of small lunules.

Hab. U.S.A.: Florida, Enterprize, 1 ♂, 1 ♀; Tampa, 1 ♀ type; *Exp.* 26 millim.

*5839. Hyperstrotia oletta. (Plate CLXV. fig. 22.)

Erastria oletta, Schaus, Trans. Am. Ent. Soc. xxx. p. 161 (1904).

♀. Head and thorax white suffused in parts with rufous; pectus and legs ochreous white; abdomen fuscous brown, pale at base, the ventral surface ochreous white. Fore wing with the basal half bright rufous, the terminal half greyish suffused and irrorated with rufous; antemedial line white, bent inwards to costa, slightly angled inwards in cell and oblique below the cell, with a whitish patch beyond it in cell; an indistinct diffused oblique medial rufous line with short black streak on it in submedian fold; reniform oblique, with whitish centre defined by rufous and whitish annulus with pale patch above it on costa; postmedial line blackish, bent outwards below costa, bent inwards below vein 4, then oblique to

inner margin; subterminal line diffused, rufous, angled outwards at vein 7 and middle, then incurved. Hind wing reddish brown; the underside whitish tinged with brown, a slight brown discoidal lunule, and indistinct rather diffused obliquely curved postmedial line.

Hab. Brazil, Castro Paraña (*D. Jones*), type † ♀ in U.S. Nat. Mus. *Exp.* 20 millim.

5840. Hyperstrotia flavipuncta.

Erastria flavipuncta, Leech, P. Z. S. 1889, p. 524, pl. 53. f. 3.

♀. Head, thorax, and abdomen pale grey tinged with brown; palpi fuscous; tarsi fuscous slightly tinged with white. Fore wing pale purplish grey, almost wholly suffused with rufous to the medial line, the termen slightly tinged with rufous; subbasal line represented by an oblique minutely dentate black striga from costa and dentate striga from cell; a large triangular grey patch on inner area before the antemedial line, with some black scales on its inner and upper edges; antemedial line black, oblique, waved, defined by white on inner side from submedian fold to inner margin; claviform an elliptical yellowish white spot; orbicular and reniform absent; medial line black, minutely waved, oblique, and followed by a white shade from costa to lower angle of cell; postmedial line defined by white on outer side, indistinct from costa to lower angle of cell, bent outwards below costa, then followed by minute black points on the veins, excurved to vein 5, then incurved to lower angle of cell, then more distinct and sinuous to inner margin; faint traces of a subterminal line angled outwards at vein 7; a terminal series of slight dark points. Hind wing greyish wholly suffused and irrorated with brown; a faint discoidal spot; cilia white with a faint brown line through them; the underside ochreous white irrorated with brown, a black discoidal spot and diffused sinuous postmedial line.

Hab. Japan, Yokohama (*Pryer*), 1 ♂ type. *Exp.* 36 millim.

5841. Hyperstrotia macroplaga. (Plate CLXV. fig. 23.)

Naranga macroplaga, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 646 (1907).

Head, thorax, and abdomen white faintly tinged with brown; palpi black at sides except towards tips; frons with lateral black points; antennæ blackish ringed with white towards base; a brown line behind tegulæ; abdomen with the basal crest tipped with black. Fore wing white tinged with brown, the medial area with conical pale yellow patch tinged with rufous on inner area just extending into cell, the terminal area suffused with rufous; a fine black subbasal line, oblique from costa to median nervure, incurved in submedian interspace and angled outwards at vein 1;

a slight blackish antemedial line angled outwards on subcostal and median nervures and inwards in cell, oblique below the cell; claviform an elliptical yellowish white spot; medial line oblique and indistinct from costa to lower angle of cell, then strongly incurved, black, forming the inner edge of the medial patch and slightly angled outwards at vein 1; postmedial line slight and oblique from costa to vein 5, then incurved, black slightly defined on outer side by white, forming the outer edge of the medial patch; a diffused oblique white fascia from apex to lower angle of cell, defined below by a black fascia towards apex; faint traces of a pale subterminal line from the black fascia to inner margin; a terminal series of dark striæ; cilia whitish mixed with brown. Hind wing whitish tinged with reddish brown; the cilia white with a slight brown line through them; the underside white, the costal and terminal areas slightly irrorated with brown, a brown discoidal point, rather punctiform postmedial line excurved below costa, and terminal series of striæ.

Hab. Ceylon, Maskeliya (*de Mowbray*), 2 ♂, 2 ♀ type. *Exp.* 20 millim.

5842. Hyperstrotia semiochrea. (Plate CLXV. fig. 24.)

Naranga semiochrea, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 447 (1898).

Head, thorax, and abdomen yellowish suffused with red-brown; palpi and antennæ dark brown; tarsi dark brown with pale rings; abdomen with the basal crest black at tip. Fore wing pale yellow to the postmedial line, suffused with rufous on costal area and just before postmedial line; traces of a dark antemedial line angled inwards on vein 1 and outwards above inner margin; postmedial line dark, slightly defined on outer side by whitish, very slightly angled outwards below costa, then obliquely excurved; terminal area red-brown with a diffused oblique whitish fascia from apex to the postmedial line at vein 6; faint traces of a dark subterminal line; a fine dark terminal line; cilia brown with a fine whitish line at base. Hind wing whitish tinged with red-brown especially towards termen; a slight brown discoidal striga; cilia whitish tinged with brown towards apex and with brown line through them; the underside whitish, the costal and terminal areas thickly irrorated with brown, a blackish discoidal spot.

Hab. Sikhim, 2600′ (*Pilcher*), 1 ♀; Assam, Khásis, 1 ♂ type. *Exp.* 20 millim.

5843. Hyperstrotia albida, n. sp. (Plate CLXV. fig. 25.)

♀. Head and thorax yellowish white, the palpi, antennæ, and fore wings slightly tinged with rufous; abdomen white. Fore wing uniform yellowish white. Hind wing pure white.

Hab. Persian Gulf, Fao (*Cuming*), 1 ♀ type. *Exp.* 20 millim.

Genus COPHANTA.

	Type.
Cophanta, Wlk. xxx 964 (1864)	*funestalis.*
Toxophleps, Hmpsn. Ill. Het. B. M. ix. p. 124 (1893)	*funestalis.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and rather broadly scaled, the 3rd moderate; frons smooth, roughly scaled; eyes large, round; antennæ of male somewhat laminate and minutely ciliated; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled; abdomen with dorsal crests, the crests on 3rd and 4th segments large. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 stalked; 5 obsolescent from middle of discocellulars; 6, 7 stalked; 8 anastomosing with the cell near base only.

Sect. I. Fore wing of male with the subcostal nervure strongly curved downwards beyond vein 11, with an elongate groove above it on upperside.

5844. Cophanta funestalis.

Cophanta funestalis, Wlk. xxx. 964 (1864).
Erastria anthracina, Snell. Tijd. v. Ent. xxiii. p. 59, pl. 5. f. 7 (1880).
Tarache optiva, Swinh. Trans. Ent. Soc. 1890, p. 224; Hmpsn. Ill. Het. B. M. ix. p. 124, pl. 167. f. 26; id. Moths Ind. ii. p. 307.

Head, thorax, and abdomen black mixed with leaden grey; tarsi ringed with white; anal tuft ochreous. Fore wing purplish grey irrorated with black and with a silvery gloss, the medial area suffused with blackish; some blackish suffusion at base of costa, the antemedial area with a blackish shade; antemedial line double,

Fig. 154.—*Cophanta funestalis*, ♂. ¾.

blackish, excurved from below costa to median nervure, then waved and filled in by two yellow lunules; postmedial line double, oblique from costa to vein 6, slightly angled inwards at discal fold and outwards at vein 4, then incurved and minutely waved, with small yellow lunules on the outer edge of the inner line; subterminal line defined on inner side by black suffusion on costal area, then slightly by black, excurved below vein 7 and at middle, slightly angled inwards at discal fold and incurved below vein 4, a faint blackish shade beyond it; a terminal series of small black spots. Hind wing silvery leaden grey; the underside greyish thickly irrorated with brown, traces of a curved postmedial line.

Ab. 1. *optiva*. Fore wing with the ante- and postmedial lines entirely filled in by yellow lunules.

Hab. Ceylon, Pundaloya (*Green*), 1 ♂; Burma, Rangoon, 1 ♂, 1 ♀ type *optiva*; Borneo, Sarawak (*Wallace*), 5 ♂, 1 ♀ type; Celebes, type † ♂, ♀ *anthracina* in Coll. Snellen; Queensland, Townsville (*Dodd*), 1 ♂. *Exp.* 16 millim.

Sect. II. Fore wing of male normal.

5845. Cophanta occidentalis, n. sp.

♂. Head, thorax, and abdomen purplish grey mixed with fuscous; pectus, legs, and ventral surface of abdomen paler, the tarsi ringed with whitish. Fore wing purple-grey irrorated with fuscous and a few silvery scales; subbasal line represented by two slight dark striæ from costa; antemedial line indistinctly double filled in with yellow, waved; postmedial line double filled in with

Fig. 155.—*Cophanta occidentalis*, ♂. ¾.

yellow, the outer line indistinct, slightly angled outwards below costa, excurved at middle, then oblique, waved, some white points beyond it on costa; subterminal line represented by whitish points from vein 6 to inner margin, excurved at middle; a terminal black line; cilia with a fine pale line at base. Hind wing grey suffused with brown; a fine whitish line at base of cilia; the underside whitish thickly irrorated with fuscous, a rather diffused curved postmedial line.

Hab. Sierra Leone (*Clements*), 3 ♂ type. *Exp.* 16 millim.

Genus **XANTHOGRAPTA**, nov.

Type, *X. trilatalis*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about middle of frons and moderately scaled, the 3rd moderate; frons smooth, roughly scaled; eyes large, round; antennæ of male somewhat laminate and minutely ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with depressed crest; tibiæ smoothly scaled; abdomen with large crests on 3rd and 4th segments. Fore wing with the apex rounded, the termen evenly curved, not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3, 4 stalked; 5 [illegible] from middle of discocellulars; 6, 7 stalked; 8 anastomosing with the cell near base only.

5846. Xanthograpta trilatalis.

Pyralis trilatalis, Wlk. xxxiv. 1237 (1865); Hmpsn. Moths Ind. ii. p. 307.

Head and thorax orange-yellow; abdomen grey-brown, ochreous at base. Fore wing with the basal area orange-yellow irrorated with brown especially towards costa, the medial area fuscous with a purplish grey gloss, the terminal area paler purplish grey; subbasal line represented by two slight dark striæ from costa; antemedial line double filled in with yellow, excurved below costa, then minutely waved; postmedial line double filled in with yellow, oblique from costa to vein 7, incurved and minutely waved below vein 4, some white points beyond it on costa; subterminal line faint, whitish, excurved below vein 7 and at middle and angled

Fig. 156.—*Xanthograpta trilatalis*, ♂. $\frac{2}{3}$.

inwards at discal fold; a terminal series of slight black striæ. Hind wing grey tinged with brown; a terminal series of slight dark striæ; a fine whitish line at base of cilia; the underside white thickly irrorated with brown, a slight discoidal striga and rather diffused curved postmedial line.

Ab. 1. Head, thorax, and base of abdomen greyish irrorated with fuscous; fore wing with the basal area greyish ochreous irrorated with fuscous, the medial and terminal areas irrorated with fuscous; both wings with terminal series of white points between the striæ.—Deesa.

Hab. Punjab (*Boys*), 1 ♀ type, Simla (*Harford*), 1 ♂, Dharmsála (*Hocking*), 4 ♂, 4 ♀, Kangra Valley (*Dudgeon*), 2 ♂, 1 ♀. Jubbulpore, 1 ♀; Bombay, Deesa (*Nurse*), 2 ♀. *Exp.* 14–18 millim.

Genus HIMEROIS.

Type.

Himerois, Turner, P. Linn. Soc. N.S.W. xxvii. p. 121 (1902) ... *thiochroa*.

Probosceis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 shortly stalked; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

A. Fore wing with oblique black postmedial line with brown band beyond it ..... *univittata*.
B. Fore wing without postmedial line or band ..... *thiochroa*.

*5847. Himerois univittata. (Plate CLXV. fig. 26.)

Xanthoptera univittata, Pag. Zoologica, xii. p. 80 (1900).

♂. Head, thorax, and abdomen yellow; palpi tinged with rufous towards extremity of 2nd joint; antennæ except at base and fore legs brownish. Fore wing yellow, the costal edge brown towards base; a fine oblique minutely waved black postmedial line with brown band on its outer side, its outer edge incurved at discal and submedian folds; a pale reddish brown terminal band narrowing to tornus; cilia reddish brown, yellowish at base. Hind wing yellowish white, the terminal area faintly tinged with rufous from apex to submedian fold; cilia with a fine brown line through them from apex to vein 2; the underside with the costal area slightly irrorated with brown, a faint discoidal bar and diffused curved postmedial line.

Hab. New Britain, Kinigunang (*Ribbé*), type † ♂ in Coll. Rothschild. *Exp.* 16 millim.

5848. Himerois thiochroa.

Himerois thiochroa, Turner, P. Linn. Soc. N. S. W. xxvii. p. 121 (1902).

Head and thorax ochreous; palpi, lateral bars to frons, pectus and legs fuscous brown; abdomen fuscous brown mixed with ochreous, the base of dorsum ochreous. Fore wing ochreous; the costal edge black towards base; a small black spot in cell at origin

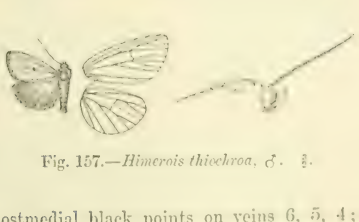

Fig. 157.—*Himerois thiochroa*, ♂. ♀.

of vein 2; postmedial black points on veins 6, 5, 4; a terminal black line composed of minute lunules; cilia black-brown. Hind wing whitish suffused with brown; cilia whitish at base and tips.

Hab. Queensland, Townsville (*Dodd*), 1 ♂, 1 ♀. *Exp.* 16 millim.

Genus EUSTROTIA.

	Type.
Eustrotia, Hübn. Verz. p. 253 (1827)	*uncula.*
Hydrelia, Guen. Ann. Soc. Ent. Fr. x. p. 227 (1841)	*olivana.*
Hyela, Steph. Cat. Lep. Brit. B. M. p. 149 (1850), non descr.; Hmpsn. Moths Ind. ii. p. 307	*uncula.*
Bankia, Guen. Noct. ii. p. 231 (1852)	*olivana.*
Micardia, Butl. A. M. N. H. (5) i. p. 81 (1878)	*argentata.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and moderately scaled, the 3rd typically short: frons smooth; eyes large, round; antennæ of male typically somewhat laminate and minutely ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the mesothorax with slight paired crests, the metathorax with spreading crest; tibiæ smoothly scaled; abdomen with dorsal crest at base only. Fore wing with the apex rounded, termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 shortly stalked or from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Antennæ of male bipectinate with short branches to apex.

5849. Eustrotia melanchlæna.

Tarache melanchlæna, Swinh. Trans. Ent. Soc. 1891, p. 148; Hmpsn. Moths Ind. ii. p. 318.

Head and thorax dark grey-brown; abdomen whitish suffused with rufous. Fore wing dark grey-brown; an antemedial whitish band tinged with rufous and bounded by the double antemedial

Fig. 158.—*Eustrotia melanchlæna*, ♂. $\frac{3}{2}$.

line filled in with grey and slightly sinuous; orbicular faint, pale, round; the reniform a slight pale lunule; an indistinct curved medial line; postmedial line double filled in with whitish, slightly bent outwards below costa and angled inwards at discal fold, incurved below vein 4, a whitish band beyond it; subterminal line indistinct, pale, excurved below vein 7 and at middle. Hind wing greyish brown; the underside ochreous whitish irrorated with brown, a slight discoidal point and curved postmedial line.

Ab. 1. Much redder and without the greyish tinge.—Belgaum.

Hab. Punjab, Jubbulpur, 1 ♂; Bombay, Canara (*Wise*), 2 ♂ type: Madras, Belgaum (*Watson*), 2 ♂, 4 ♀. *Exp.* 16–22 millim.

Sect. II. Antennæ of male somewhat laminate and minutely ciliated.

A. Palpi with the 3rd joint as long as the 2nd and reaching far above vertex of head.

5850. Eustrotia chuza.

Pseudina chuza, Druce, Biol. Centr.-Am., Het. ii. p. 494, pl. 95 f. 13 (1898).

♀. Head and thorax purplish grey mixed with some white and fuscous, the vertex of head and base of tegulæ whiter, the latter with slight black medial line; tarsi fuscous ringed with pinkish; abdomen ochreous white suffused with brown, the basal crest tipped with black, the ventral surface paler. Fore wing red-brown suffused with purplish grey; subbasal line represented by a whitish striga from costa, a black point in cell, and two obliquely placed black points below the cell, some black suffusion beyond it below costa; antemedial line indistinctly double filled in with whitish, sinuous, angled outwards above inner margin; claviform defined by black at extremity; orbicular and reniform defined by black, the former round with some pale rufous on its inner edge,

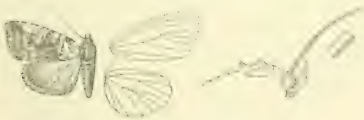

Fig. 159.—*Eustrotia chuza*, ♂. ½.

the latter oblique elliptical with some pale rufous on its inner edge, extending to well below the cell; an indistinct medial line, oblique from costa to reniform, waved from cell to inner margin; post-medial line double at costa, strongly bent outwards below costa, then dentate and produced to whitish and black points on the veins, incurved below vein 4, some whitish points beyond it on costa; subterminal line indistinct, whitish defined on inner side by brown suffusion, slightly excurved below vein 7 and at middle and crossed by black streaks from termen below veins 8 and 7; a terminal series of minute black lunules. Hind wing pale suffused with red-brown, especially on terminal area; a fine dark terminal line; the underside ochreous white, the costal area suffused with purplish pink, traces of a curved postmedial line.

Hab. Mexico, Cuernavaca, Morelos (*H. H. Smith*). 1 ♀ type, Godman-Salvin Coll. *Exp.* 30 millim.

B. Palpi with the 3rd joint much shorter than the 2nd.
a. Mid and hind tibiæ of male fringed with very long hair on outer side; hind wing with fringe of long hair below the cell on underside.

5851. Eustrotia metalophota.

Barasa metalophota, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 452 (1898).

Head and thorax white mixed with some brown, the tips of tegulæ rufous, the patagia with dark patches; palpi and antennæ brown; pectus and legs ochreous white, the tarsi dark brown ringed with white; abdomen ochreous suffused with brown, the basal crest tipped with black; the underside black in male except at extremity. Fore wing white slightly irrorated with fuscous; a diffused brown subbasal line; a diffused black-brown patch on antemedial costal area; antemedial line black, angled outwards below costa and strongly on median nervure, excurved at vein 1; claviform defined by black and running obliquely downwards from the angle of antemedial line; reniform large, white defined by black with some ochreous and a black discoidal striga in centre,

Fig. 160.—*Eustrotia metalophota*, ♂. ½.

an oblique black bar above it from costa; postmedial line black, bent outwards below costa, minutely dentate at veins 6, 4, 3, then bent inwards to inner edge of reniform and white strongly defined on each side by black to inner margin, a sinuous brown line beyond it from costa to vein 4 and some white points on the brown costa; subterminal line white defined on inner side by black spots and minute streaks, waved, excurved below vein 7 and at middle and angled inwards at submedian fold, black streaks beyond it below veins 7, 6, 5; a terminal series of small black spots defined by white lunules; cilia chequered brown and white. Hind wing dark brown, the cilia more ochreous; the underside ochreous white irrorated with brown, the fringe of hair in male ochreous, a dark discoidal spot, postmedial line excurved below costa, and subterminal shade.

Hab. Assam, Khásis, 1 ♂, 1 ♀ type. *Exp.* 24 millim.

b. Mid and hind tibiæ and hind wing of male normal.
*a*¹. Fore wing with white fascia on median nervure.
*a*². Fore wing with the white fascia extending to base and expanding towards extremity ..... *argentata*.
*b*². Fore wing with the white fascia not extending to base or expanding towards extremity ..... *pulcherrima*.
*b*¹. Fore wing with fine white streak on median nervure.
*a*². Fore wing with the orbicular well-developed and with white annulus.
*a*³. Fore wing with dark patch from costa extending between orbicular and reniform ..... *pulchra*.
*b*³. Fore wing without dark patch from medial part of costa ..... *vi[illegible]*.
*b*². Fore wing with the orbicular represented by a rufous point ..... *albifissa*.
*c*¹. Fore wing without white streak on median nervure.
*a*². Fore wing with white fasciæ in end of cell and in submedian fold to postmedial line ..... *munda*.
*b*². Fore wing without white fasciæ in cell and submedian fold.
*a*³. Fore wing with the costal area paler than the ground-colour.
*a*⁴. Fore wing with the costal area defined by a white fascia from apex to inner margin before middle, the orbicular and reniform absent; hind wing cupreous red..... *divisa*.
*b*⁴. Fore wing with oblique white postmedial line from below apex to inner margin, the orbicular and reniform confluent with the pale costal area ..... [illegible].
*c*⁴. Fore wing without oblique white line, the orbicular and reniform indistinctly defined. *diascia*.
*b*³. Fore wing with the costal area not paler than the ground-colour.
*a*⁴. Fore wing with oblique line from costa beyond middle to tornus.
*a*⁵. Fore wing with the antemedial line inwardly oblique ..... [illegible].
*b*⁵. Fore wing with the antemedial line outwardly oblique ..... *obliqua*.
*b*⁴. Fore wing without oblique line from costa beyond middle to tornus
*a*⁵. Fore wing with the medial area white, the basal and terminal areas fuscous ..... *tripartita*.
*b*⁵. Fore wing with oblique white band from middle of costa to the terminal white area at tornus defining a triangular postmedial black-brown patch on costa ..... *candidula*.
*c*⁵. Fore wing with the basal and postmedial areas white, the medial area with darker band.
*a*⁶. Fore wing with some dark suffusion on basal area below the cell.
*a*⁷. Fore wing with the reniform angled inwards on median nervure to near orbicular ..... *argentipa*.
*b*⁷. Fore wing with the reniform not angled inwards on median nervure ..... *rhaptina*.

b^6. Fore wing without dark suffusion on basal area below the cell.
a^7. Fore wing with rufous patches on postmedial area at costa, middle, and inner margin ..... *noloides.*
b^7. Fore wing with the white postmedial area interrupted by an oblique dark shade from costa towards apex.
a^8. Fore wing with the medial band defined on inner side by an erect black line.
a^9. Fore wing with the medial band and terminal area ochreous brown.
a^{10}. Fore wing with the reniform confluent with a white patch from costa ..... *magna.*
b^{10}. Fore wing with the reniform not confluent with a white patch from costa ..... *amorpha.*
b^9. Fore wing with the medial band and terminal area blackish ..... *tegulata.*
b^8. Fore wing with the medial band defined on inner side by an oblique black line ..... *albibasis.*
c^7. Fore wing with oblique dark shade from costa towards apex not completely interrupting the white postmedial area.
a^8. Fore wing with the terminal area olive and expanding to postmedial line at middle..... *olivula.*
b^8. Fore wing with narrow brownish terminal band ..... *erecta.*
c^8. Fore wing with the terminal area suffused with brown.
a^9. Fore wing with the medial band very broad ..... *latifasciata.*
b^9. Fore wing with the medial band narrow ..... *inconcisa.*
d^8. Fore wing with the terminal area white with subterminal black bar at middle..... *ruptifascia.*
d^7. Fore wing without oblique dark shade from costa towards apex.
a^8. Fore wing with the medial band rufous..... *thermozona.*
b^8. Fore wing with the medial area golden brown ..... *ritsemæ.*
c^8. Fore wing with the medial band blackish.
a^9. Fore wing with the terminal band angled inwards at discal fold ..... *quadripartita.*
b^9. Fore wing with the terminal band not angled inwards at discal fold ... *phæozona.*
d^5. Fore wing without white medial band and the basal and postmedial areas not white contrasting with a darker medial band.
a^6. Fore wing with black medial band.
a^7. Fore wing ochreous with the medial band broad ..... *eurycona.*

b^7. Fore wing purplish grey, the medial band narrow.
a^8. Fore wing with the medial band interrupted below costa and incurved.
a^9. Fore wing with the medial band expanding towards inner margin ... *lixiva*.
b^9. Fore wing with the medial band not expanding towards inner margin ... *basicinerea*.
b^8. Fore wing with the medial band not interrupted below costa.
a^9. Fore wing with the medial band almost straight ... *orthozona*.
b^9. Fore wing with the medial band expanding on outer side below the reniform.
a^{10}. Hind wing brown ... [illegible].
b^{10}. Hind wing orange ... *genuflexa*.
b^6. Fore wing without black medial band.
a^7. Fore wing with the basal area dark, the postmedial area pale.
a^8. Hind wing yellow.
a^9. Fore wing with the postmedial line slightly excurved beyond the reniform ... [illegible]
b^9. Fore wing with the postmedial line strongly excurved beyond the reniform.
a^{10}. Fore wing with the basal area red-brown ... [illegible]
b^{10}. Fore wing with the basal area black-brown ... [illegible]
a^8. Hind wing not yellow.
a^9. Fore wing with the terminal area darker than the postmedial area.
a^{10}. Fore wing with the apex not pale.
a^{11}. Fore wing with the outer edge of the dark area oblique from costa to below the reniform ... *decissima*.
b^{11}. Fore wing with the outer edge of the dark area not oblique from costa to below the reniform ... [illegible]
b^{10}. Fore wing with the apex pale.
a^{11}. Fore wing with the postmedial line fairly distinct ... *epella*.
b^{11}. Fore wing with the postmedial line obsolete ... *leucopera*.
b^9. Fore wing with the terminal area not darker than the postmedial area.
a^{10}. Fore wing with the dark basal area not extending beyond the antemedial line ... *dividua*.
b^{10}. Fore wing with the dark basal area extending to the reniform.
a^{11}. Fore wing with the outer edge of the dark area angled outwards below the reniform ... *extilinea*.

b^{11}. Fore wing with the outer edge of the dark area almost straight.
a^{12}. Fore wing with the terminal area purplish brown, the orbicular obsolete ..... *longena.*
b^{12}. Fore wing with the terminal area rufous, the orbicular present .... *phæomera.*
b^{7}. Fore wing with the basal area not darker than the postmedial area.
a^{8}. Fore wing with the basal area paler than the terminal area.
a^{9}. Fore wing with the pale area not extending on costa to the postmedial line.
a^{10}. Fore wing with the postmedial line excurved from below costa to vein 4, then incurved.
a^{11}. Fore wing without small black spot on outer edge of reniform ..... *isomera.*
b^{11}. Fore wing with small black spot on outer edge of reniform ..... *dimera.*
b^{10}. Fore wing with the postmedial line angled outwards below costa, then oblique.
a^{11}. Fore wing with black points round lower part of reniform.
a^{12}. Fore wing with the subterminal line angled inwards at discal fold ..... *bipars.*
b^{12}. Fore wing with the subterminal line not angled inwards at discal fold ..... *excavata.*
b^{11}. Fore wing without black points round lower part of reniform ... *ozarbica.*
b^{9}. Fore wing with the pale area extending on costa to the postmedial line .... *catæa.*
b^{8}. Fore wing with the basal area not paler than the terminal area.
a^{9}. Fore wing with dark streak between lower part of orbicular and reniform ..... *cnossia.*
b^{9}. Fore wing without dark streak between lower part of orbicular and reniform.
a^{10}. Fore wing with oblique blackish mark beyond the reniform ..... *culta.*
b^{10}. Fore wing without oblique blackish mark beyond the reniform.
a^{11}. Fore wing with triangular chocolate-brown subbasal and medial patches on costa ..... *costimacula.*
b^{11}. Fore wing without triangular chocolate-brown subbasal and medial patches on costa.
a^{12}. Fore wing white with the apical area suffused with rufous ..... *semialba.*

b^{12}. Fore wing not white, with the apical area suffused with rufous.
a^{13}. Fore wing fuscous brown mixed with grey or purplish grey.
a^{14}. Fore wing with the orbicular absent, the reniform distinctly defined by white.
a^{15}. Fore wing with the centre of reniform brown ..... *albisigna.*
b^{15}. Fore wing with the centre of reniform incompletely defined by brown.
a^{16}. Fore wing with whitish suffusion on costa above the reniform ..... *amydrozona.*
b^{16}. Fore wing without whitish suffusion on costa above the reniform ..... *macrosema.*
c^{16}. Fore wing with two black points in centre of reniform. *amydra.*
b^{14}. Fore wing with the orbicular absent, the reniform represented by two black points defined by grey.
a^{15}. Fore wing with yellowish marks on the medial shade at median nervure and vein 1. *flaviguttata.*
c^{15}. Fore wing without yellowish marks on the medial shade at median nervure and vein 1. *secta.*
c^{14}. Fore wing with the orbicular and reniform defined by grey.
a^{15}. Fore wing with black centres to orbicular and reniform... *bryophilina.*
b^{15}. Fore wing without black centres to orbicular and reniform.
a^{16}. Fore wing with complete grey annuli to orbicular and reniform ..... *ustydamia.*
b^{16}. Fore wing with the reniform defined by grey points.. *asteria.*
d^{14}. Fore wing with the orbicular and reniform white defined by black ..... *micropis.*
e^{14}. Fore wing with the orbicular a black point, the reniform represented by a whitish bar. *melanopis.*
b^{13}. Fore wing yellow largely suffused with black and with white ante- and postmedial bands .. *chionozona.*
c^{13}. Fore wing ochreous usually tinged with rufous.
a^{14}. Fore wing with fine white ante- and postmedial lines defined by black.
a^{15}. Fore wing with the postmedial line widely separated from the reniform.
a^{16}. Fore wing strongly suffused with rufous .....

b^{16}. Fore wing slightly tinged with rufous ..... *bilineata.*
b^{15}. Fore wing with the postmedial line touching upper and lower extremities of reniform..... *ferrans.*
b^{14}. Fore wing without ante- and postmedial lines.
a^{15}. Fore wing without black terminal band.
a^{16}. Tegulæ not blackish ..... *fuscicilia.*
b^{16}. Tegulæ blackish ..... *flavifrons.*
b^{15}. Fore wing with black terminal band narrowing to apex and tornus ..... *marginata.*

5852. Eustrotia argentata.

Micardia argentata, Butl. A. M. N. H. (5) i. p. 81 (1878); id. Ill. Het. B. M. ii. p. 23, pl. 28. f. 3.

Head and thorax ochreous mixed with red-brown; tegulæ with diffused blackish line near tips; abdomen ochreous irrorated with fuscous. Fore wing ochreous slightly tinged with rufous, suffused with deep rufous and irrorated with black to end of cell except on inner area; the cell filled in with silvery white to middle, then the white bent downwards and angled outwards to or just before lower angle of cell and extending to below the cell where it is angled on vein 2, this white area defined by black towards extremity; reniform ochreous faintly defined by whitish and below by black, somewhat constricted at middle and angled inwards on median nervure; postmedial line indistinct, whitish, erect from costa to reniform, then acutely angled outwards at vein 6 where it is met by an oblique rufous fascia from apex, diffused towards costa, then incurved; a terminal series of slight dark striæ; cilia with a faint brown line near base. Hind wing pale ochreous tinged with brown; a terminal series of slight dark striæ; cilia pale ochreous; the underside ochreous white irrorated with a few brown scales, a blackish discoidal point.

Hab. Japan, Kiushiu, 1 ♀, Nikko (*Maries*, *Ito*), 4 ♂, Tokio (*Maries*), 1 ♂, Yokohama (*Jones*, *Manly*), 3 ♂, 3 ♀ type; Corea, Gensan (*Ito*), 1 ♂, 1 ♀; C. China, Kiukiang (*Pryer*), 1 ♂. *Exp.* 32–34 millim.

5853. Eustrotia pulcherrima.

Leucania pulcherrima, Moore, P. Z. S. 1867, p. 48, pl. 6. f. 7; Hmpsn. Moths Ind. ii. p. 309.

Head and thorax ochreous tinged with rufous; palpi fuscous except at base; abdomen ochreous irrorated with black, the anal tuft tinged with rufous. Fore wing ochreous white, the costal area to beyond middle and the inner area tinged with fiery red; the

costal edge olive-brown; the cell and area below it to submedian fold olive-brown extending obliquely from end of cell to apical part of costa, where it is more rufous; a slight black streak in base of submedian fold; a minute antemedial black streak on vein 1; a silvery-white fascia above terminal half of median nervure, defined by black and acute at extremities; two ill-defined blackish discoidal spots; a slight dark medial line from submedian fold to inner margin, angled inwards on vein 1; the brown area defined below by an oblique silvery-white streak towards apex; an oblique diffused brown fascia from termen below vein 5 to submedian fold beyond middle; a terminal series of black points; cilia tinged with red-brown. Hind wing white tinged with ochreous; an indistinct blackish discoidal spot and faint postmedial line excurved beyond the cell, then incurved; a terminal series of black points; the underside tinged with rufous and irrorated with dark brown, the black discoidal spot, postmedial line, and terminal points much more prominent.

Hab. Sikhim (*Lidderdale*), 1 ♂, 4 ♀ type. *Exp.* 34–40 millim.

5854. Eustrotia pulchra.

Micardia pulchra, Butl. A. M. N. H. (5) i. p. 81 (1878); id. Ill. Het. B. M. ii. p. 23, pl. 28. f. 4.

Head and thorax ochreous tinged with rufous and slightly irrorated with brown; antennæ ringed with brown; abdomen ochreous white irrorated with brown. Fore wing ochreous tinged with rufous and irrorated with fuscous, the medial costal area with a fuscous patch irrorated with purplish pink, the costal area beyond it yellow tinged with rufous to apex, the veins with slight pale streaks except on costal area; subbasal and antemedial lines absent; orbicular and reniform purplish pink with slight whitish annuli, the former narrow and oblique, extending to below the cell, the latter a rather narrow lunule; postmedial line whitish, obliquely downcurved from costa to vein 6 where it is acutely angled outwards to near subterminal line, then defined on outer side by purplish pink and black to vein 2, incurved below vein 4; an obliquely curved whitish subterminal line from below apex to above inner margin; a terminal series of black strigæ; cilia pale ochreous with a dark line through them, some black scales at apex and at middle at tips. Hind wing pale ochreous suffused with brown; the cilia pale; the underside ochreous white tinged with fulvous and irrorated with brown.

Hab. Japan, Kiushiu, 1 ♀, Yokohama (*Jonas*, *Manley*), 4 ♂, 2 ♀ type; Corea, Gensan (*Ito*), 2 ♂; Ceylon, Haputale (*Alston*), 1 ♀. *Exp.* 30–34 millim.

5855. Eustrotia viscotti.

Erastria wiskotti, Staud. Stett. Ent. Zeit. xlix. p. 266 (1888); id. Rom. Mém. vi. p. 563, pl. 11. f. 4; id. Cat. Lep. pal. p. 230.

♀. Head and thorax violaceous white mixed with rufous; palpi and frons with some black scales; antennæ ringed with white; abdomen ochreous white. Fore wing violaceous white suffused with rufous; subbasal line represented by a slight rufous striga from costa; antemedial line double, rufous filled in with violaceous white, erect, waved; claviform defined at extremity by white and blackish scales; orbicular and reniform with violaceous white annuli very incompletely defined by black, the former small, round, the latter bar-shaped; a slight white streak on extremity of median nervure; medial line rufous, oblique to the reniform, oblique and sinuous from beyond lower angle of cell to inner margin; postmedial line indistinctly double filled in with white and defined by violaceous white on outer side, slightly bent outwards below costa, oblique to vein 6, oblique and slightly sinuous below vein 4; subterminal line whitish, very slightly excurved below vein 7 and incurved below vein 2; a terminal series of slight black lunules defined on inner side by a waved white line. Hind wing white, very slightly tinged with rufous; a fine rufous terminal line; the underside white slightly irrorated with rufous.

Hab. E. Siberia, Ussuri, 1 ♀. *Exp.* 24 millim.

5856. Eustrotia albifissa. (Plate CLXV. fig. 27.)

Hyela albifissa, Hmpsn. Ann. S. Afr. Mus. ii. p. 393 (1902).

♂. Head and thorax ochreous white mixed with reddish crimson, the patagia with the scales pencilled with purple-brown towards tips; abdomen ochreous irrorated with black-brown. Fore wing whitish suffused with ochreous and flesh-pink, the costal area to beyond middle redder with dark purplish streaks on the veins; a white streak on median nervure and veins 4, 5 to postmedial line, with a deeper red wedge-shaped patch between it and vein 2; the basal area below the cell white irrorated with pink, its outer edge very oblique and defined by black scales; claviform elongate, rufous with a slight whitish streak in middle, some purplish beyond it on base of vein 2; orbicular represented by a rufous point in lower part of cell, the reniform by two black points; postmedial line indistinctly double filled in with silvery white, very strongly bent outwards below costa to near subterminal line, where it is met by an oblique black shade from apex, then oblique; terminal area white tinged with pink and very finely striated with fuscous, the subterminal line very indistinct, oblique, white; a terminal rufous line; cilia white tipped with fuscous. Hind wing ochreous white, the costal and terminal areas slightly irrorated with fuscous: cilia

tipped with fuscous; the underside yellowish white irrorated with brown, the costal area tinged with rufous, a dark discoidal point, indistinct postmedial line excurved to vein 4, then oblique, and fine terminal line.

Hab. Transvaal, White R. (*Cooke*), 1 ♂: Natal, Karkloof (*Marshall*), 1 ♂ type. *Exp.* 26 millim.

5857. Eustrotia munda. (Plate CLXV. fig. 28.)

Micardia munda, Leech, Trans. Ent. Soc. 1900, p. 148.

♂. Head, thorax, and abdomen pale olive-ochreous; palpi white at base, the 2nd joint crimson at sides; antennæ ringed with black; patagia edged with crimson above. Fore wing olive-ochreous; the basal costal area crimson, then the costal edge crimson to beyond middle; a triangular crimson patch slightly irrorated with black from base of cell to submedian fold beyond middle and thence obliquely to apex, defined below by silvery white except towards apex, with a fine black line between the two colours; a silvery white streak in and beyond terminal half of cell above the crimson area; cilia crimson, brown at tips. Hind wing white tinged with ochreous; an oblique postmedial series of slight dark points on veins 5 to 2; the veins slightly streaked with brown towards termen; cilia tinged with brown at tips at apex and with slight brown marks at base at middle. Underside of fore wing with the disk suffused with fuscous: hind wing ochreous white irrorated with brown.

Hab. W. China, Pu-tsu-fang, 2 ♂ type. *Exp.* 30 millim.

5858. Eustrotia divisa.

Anthophila divisa, Saalm. Lep. Madag. p. 363, f. 234 (1891).

♂. Head and thorax red-brown mixed with greyish, the palpi and frons with some black scales; pectus and legs paler, the tarsi brown with pale rings; abdomen purplish red, the ventral surface ochreous white tinged with rufous. Fore wing with the costal area olive-ochreous from inner margin before middle to costa towards apex, its outer edge curved and defined by white except towards apex, the rest of wing deep purplish red; postmedial line very slight, whitish, oblique from the pale costal area to vein 4, then incurved; subterminal line very slight, whitish, dentate at veins 4, 3, 2; some white striæ just before termen towards apex. Hind wing cupreous red with a fine whitish line at base of cilia. Underside of fore wing uniform cupreous red.

Hab. Madagascar, Betsileo (*Cowan*), 2 ♂. *Exp.* 20 millim.

5859. Eustrotia uncula.

Phalæna uncula, Clerck, Icones, pl. 3. f. 7 (1759); Staud. Cat. Lep. pal. p. 230.
Tortrix uncana, Linn. Faun. Suec. p. 342 (1761); Steph. Ill. Brit. Ent., Haust. iii. p. 117.
Tortrix unca, Schiff. Wien. Verz. p. 91 (1776); Esp. Schmett. iv. pl. 164. f. 7; Hübn. Eur. Schmett., Noct. f. 293; Dup. Lép. Fr. vii. pt. i. p. 379, pl. 123. f. 4; Frr. Neue Beitr. pl. 598.

Head and thorax rufous; tarsi brown ringed with white; abdomen whitish mixed with brown. Fore wing whitish suffused with pale rufous, a triangular patch on disk between ante- and postmedial lines deep rufous; antemedial line obsolete on costal area, then rufous slightly defined by whitish on inner side, angled inwards above vein 1 and bent outwards above inner margin; the

Fig. 161.—*Eustrotia uncula*, ♂. ½.

orbicular represented by a white sinus on upper edge of the deep rufous area, the reniform by a very oblique hook with white annulus from the pale costal area; postmedial line dark defined by white on outer side and bounding the deep rufous area, running from below apex, where it is met by an oblique black shade from apex, obliquely with a slight outward curve to inner margin; subterminal line white slightly defined on each side by brown, oblique and almost straight from the apical shade to inner margin; a dark brown terminal line; cilia pale rufous with two fine brown lines through them. Hind wing pale reddish brown with a fine dark terminal line; cilia brownish white with a slight brown line through them; the underside greyish irrorated with brown, the costal area tinged with rufous, a faint discoidal spot and indistinct curved postmedial line.

Hab. Britain, Leech Coll.; France; Germany, Zeller, Frey, and Leech Colls.; Austria, Leech Coll.; Hungary; Switzerland, Frey Coll.; N. Italy; Rumelia; Russia, Livonia, Zeller Coll.; W. Siberia, Altai; E. Siberia, Amurland, 1 ♂, Ussuri; Japan, Hakodaté (*Leech*), 2 ♀, Oiwake (*Pryer*), 1 ♂. *Exp.* 22–26 millim.

Larva. Meyr. Brit. Lep. p. 166; Barrett, Lep. Brit. vi. p. 187, pl. 247. f. 2.

Slender, the 1st pair of prolegs absent, the 2nd pair rudimentary: green; dorsal line darker; subdorsal line whitish; spiracular line pale yellow; head yellowish green. Food-plant: *Carex sylvatica* 7–8.

5860. Eustrotia diascia, n. sp. (Plate CLXV. fig. 29.)

Head and thorax ochreous mixed with dark brown; tarsi blackish with pale rings; abdomen fulvous yellow slightly irrorated with brown, the ventral surface suffused with brown. Fore wing yellow tinged with brown except the basal inner area and the costa towards apex; antemedial line indistinct, dark, waved; claviform with blackish spot in middle and slightly defined by brown at extremity, extending to cell; orbicular defined by brown and with dark point in centre, round; reniform very indistinctly defined by brown, constricted at middle and with dark points in upper and lower parts; postmedial line double, obsolescent on costal area, filled in with white and with some whitish beyond it on inner area, bent outwards below costa, oblique to vein 6, then inwardly oblique and minutely dentate, met at vein 6 by an oblique dark shade from apex; subterminal line very indistinct, excurved at middle; a terminal series of slight black points; cilia with a fine whitish line at base. Hind wing nearly uniformly suffused with brown, the cilia with a fine whitish line at base; the underside ochreous white thickly irrorated with fuscous, a black discoidal spot, rather diffused postmedial line, and fine terminal line.

Hab. Br. E. Africa, Kikuyu (*Crawshay*), 1 ♂, 1 ♀ type. *Exp.* 22 millim.

5861. Eustrotia obliqua.

Bankia obliqua, Moore, Lep. Atk. p. 143 (1882); Butl. Ill. Het. B. M. vii. p. 63, pl. 129. f. 7; Hmpsn. Moths Ind. ii. p. 307.

Head and thorax white mixed with rufous; palpi dark brown, except at tips; antennæ dark brown; tegulæ with rufous band; tarsi brownish ringed with white; abdomen ochreous white mixed with dark brown. Fore wing with the basal area white irrorated with rufous and bounded by an inwardly oblique pure white line defined on outer side by a very minutely waved black line; the rest of wing deep chocolate-red with a narrow oblique pure white band from costa just beyond middle to tornus, some slight white points beyond it on costa; cilia blackish. Hind wing whitish suffused with reddish brown; a fine dark terminal line; cilia whitish with a slight dark line through them; the underside whitish tinged with red and irrorated with brown, a dark discoidal spot and traces of a curved postmedial line.

Hab. Kashmir; Punjab, Simla (*Hayward*), 1 ♂, 1 ♀, Dharmsála (*Hocking*), 1 ♂ type, Kangra Valley (*Duligan*), 2 ♂; Ceylon, (*Macwood*, *Vole*), 1 ♂, 2 ♀; Burma, Bhamo (*Fea*). *Exp.* 20–22 millim.

5862. Eustrotia olivana.

Tortrix olivana, Schiff. Wien. Verz. p. 126 (1776).
Pyralis bankiana, Fabr. Spec. Ins. ii. p. 275 (1781); Steph. Ill. Brit. Ent., Haust. iii. p. 117.
Noctua argentula, Hübn. Beitr. i. 2. p. 9, pl. 2. f. F (1787); Esp. Schmett. iv. pl. 163. f. 3 (1793); Dup. Lép. Fr. vii. pt. i. p. 373, pl. 123. f. 2; Frr. Neue Beitr. pl. 599; Staud. Cat. Lep. pal. p. 230.
Noctua oliva, Hübn. Eur. Schmett., Noct. f. 292 (1802).
Erastria amurula, Staud. Rom. Mém. vi. p. 562 (1892).
Erastria oblitescens, Schultz, Ent. Zeit. Stuttgart, xxi. p. 78 (1907).
Erastria confluens, Schultz, Ent. Zeit. Stuttgart, xxi. p. 79 (1907).

Head and thorax olive-brown mixed with white and some black; palpi brown, whitish in front; frons with dark bar; tarsi brown ringed with whitish; abdomen whitish irrorated with dark brown. Fore wing red-brown with an olive tinge; a short silvery-white fascia below base of costa; a very oblique silvery-white antemedial band, narrowing to inner margin, its edges slightly sinuous and defined by black, sometimes produced to points on outer side in and below the cell; a similar postmedial band ending at tornus, expanding on inner side into a spot on discocellulars, sometimes with black point on it at lower angle of cell; an oblique white striga from costa just before apex; a narrow terminal white band not quite reaching apex or tornus; cilia white mixed with dark brown and with slight dark line near base. Hind wing white suffused with brown; cilia white with a slight dark line near base and some dark scales at tips; the underside white irrorated with red-brown, a small dark discoidal spot and diffused reddish mark on costa towards apex.

Ab. 1. *amurula*. Fore wing slightly browner.

Hab. Britain, Leech Coll.; France; Germany, Zeller and Frey Colls.; Austria, Leech Coll.; Hungary; Switzerland; Spain, Catalonia; Italy; S. Russia; Armenia; Persia; W. Turkestan, Ferghana, Issyk-Kul; W. Siberia, Altai; E. Turkestan, Kaschgar, Ili, Korla; E. Siberia, Amurland, Ussuri; C. China, Shanghai, 1 ♂. *Exp.* 24–28 millim.

Larva. Meyr. Lep. Brit. p. 166; Barrett, Brit. Lep. vi. p. 183. pl. 247. f. 1.

Slender, the 1st pair of prolegs absent, the 2nd pair rudimentary; yellow-green; dorsal line indistinct, dark green; subdorsal line yellow; head pale green. Food-plants: *Poa aquatica*, *P. annua*, etc. 7.

5863. Eustrotia tripartita. (Plate CLXV. fig. 30.)

Tarache tripartita, Leech, Trans. Ent. Soc. 1900, p. 149.

♀. Head, thorax, and abdomen ochreous white suffused with brown; tarsi black-brown ringed with white. Fore wing greyish fuscous irrorated with black, the medial area white with a blackish patch on middle of costa, the postmedial costal area with an olive-brown patch; subbasal line black defined by white on outer side,

curved, from costa to median nervure; antemedial line black, oblique from costa to submedian fold where it is angled, then inwardly oblique; a black discoidal bar; postmedial line black, slightly excurved below costa, oblique to vein 4, then acutely angled inwards in submedian fold and again excurved, some white points beyond it on costa; subterminal line represented by a wedge-shaped white mark from costa, then very indistinct, angled outwards at vein 7, excurved at middle, and angled inwards at discal and submedian folds; a fine waved black terminal line; a series of white points at base of cilia. Hind wing fuscous brown with a lunulate dark terminal line and whitish line at base of cilia; the underside whitish thickly irrorated with brown, a blackish discoidal spot.

Hab. W. China, Chow-pin-sa, 1 ♀ type. *Exp.* 26 millim.

5864. Eustrotia candidula.

Noctua candidula, Schiff. Wien. Verz. p. 89 (1776); Hübn. Eur. Schmett., Noct. f. 295; Dup. Lép. Fr., Suppl. iv. p. 78, pl. 57. f. 2; Frr. Neue Beitr. pl. 693. f. 1.

Noctua pusilla, View. Tab. Verz. ii. p. 84, pl. 1. f. 8 (1790); Staud. Cat. Lep. pal. p. 230.

Head and thorax white mixed with some yellow-brown; palpi and antennæ yellow-brown; tarsi brown ringed with white; abdomen white suffused with ochreous brown. Fore wing white; dark brown points at base of costa and cell; subbasal line indistinctly double filled in with white, curved, from costa to median nervure, a brown patch beyond it on costal area before the antemedial line, which is indistinct, double filled in with white, oblique, sinuous, incurved at median nervure, some dark brown suffusion before it on inner area and some ochreous-brown suffusion beyond it from cell to inner margin; orbicular represented by two slight obliquely placed black points; reniform blue-grey obscurely defined by white points and irregular black spots, placed on a large semicircular dark patch extending on costa from middle to near apex and to lower angle of cell; postmedial line double and filled in with white from costa to vein 4, then single, bent outwards and obsolescent below costa, slightly angled inwards at discal fold, incurved below vein 4, some white points beyond it on costa and short black streaks between veins 8 and 5; subterminal line only defined by a pale ochreous-brown shade on its inner side and slight ochreous shade beyond it at middle, slightly excurved below vein 7 and at middle; a terminal series of slight black striæ; cilia ochreous brown and white with fine brown line at middle. Hind wing white tinged with ochreous brown, especially on terminal area; a faint discoidal lunule, curved postmedial line, and diffused subterminal shade; a fine dark terminal line; the underside white irrorated with ochreous brown, the discoidal lunule and postmedial line more distinct.

Hab. France, Sand Coll.; Germany, Zeller and Frey Colls.; Austria, Leech Coll.; Scandinavia; Russia, Livonia, Zeller Coll.,

Sarepta, Leech Coll.; Armenia; Asia Minor, Pontus, Bithynia, Taurus; Persia; W. Turkestan, Ala Tau; W. Siberia, Altai; Mongolia, Urga; E. Siberia, Kentei, Amurland, Ussuri; Japan, Yesso (*Pryer*), 2 ♂. Oiwake (*Pryer*), 1 ♂. Tokio (*Maries*), 1 ♀; Corea, Gensan (*Leech*), 1 ♂, 1 ♀. *Exp.* 24–28 millim.

Larva. Kirby, Butt. & Moths Eur. p. 285: Hffm. Raup. p. 142. pl. 36. f. 13.

Green; dorsal and subdorsal lines black; lateral line whitish. Food-plants: Grasses, *Sparganium* and *Polygonum*. 8–9.

5865. Eustrotia argotypa. (Plate CLXV. fig. 31.)

Hyela argotypa, Turner, Pr. Linn. Soc. N. S. W. xxvii. p. 111 (1902).

♂. Head and thorax white mixed with dark brown; abdomen ochreous white slightly irrorated with brown, the basal crest blackish. Fore wing white irrorated with dark brown, the medial and terminal areas suffused with brown; subbasal line represented by a slight dark striga from costa; antemedial line strong, white defined on outer side by dark striæ, angled outwards and interrupted below costa, then oblique and minutely sinuous; claviform represented by slight dark suffusion; orbicular and reniform white faintly defined by blackish, the former an oblique bar, its upper extremity slightly bent outwards and its lower extremity inwards, the latter with brownish centre, strongly constricted at middle and angled inwards on median nervure almost to the orbicular, a diffused blackish fascia between and beyond them, the veins beyond the reniform with slight dark streaks; postmedial line strong, white, oblique from costa to vein 4, then slightly incurved; a subterminal series of short blackish streaks; a terminal series of slight black lunules defined on inner side by some white scales. Hind wing white irrorated with brown, the underside with dark discoidal lunule and traces of diffused curved postmedial line.

Hab. Queensland, Brisbane (*Turner*), 1 ♂. *Exp.* 26 millim. Type † in Coll. Turner.

5866. Eustrotia rhaptina. (Plate CLXV. fig. 32.)

Erastria rhaptina, Turner, Tr. R. Soc. S. Austr. xxviii. p. 217 (1904).

Head, thorax, and abdomen whitish grey; palpi fuscous at sides; legs tinged with fuscous. Fore wing white largely suffused with golden brown, especially on medial area and before the subterminal line; the subbasal line ill-defined, white with a black striga before it at costa and a waved black mark beyond it below the cell; antemedial line golden brown, fine, oblique, defined by white on each side; orbicular and reniform figure-of-8-shaped, white with golden brown centres to upper and lower parts, defined by black; postmedial line fine, golden brown defined on each side by white, strongly bent outwards below costa and slightly incurved below

vein 4; some white points on costa towards apex; subterminal line white, irregularly dentate, angled outwards at vein 7 and excurved at middle, strongly defined by golden brown on inner side and with slight black streaks before it at middle; a terminal series of white and black lunules; cilia pale brownish, white at tips. Hind wing white slightly tinged with fuscous; a fine dark terminal line; the underside white, with the costal area irrorated with brown.

Hab. Queensland, Thursday I., 4 ♀. *Exp.* 22 millim. Type + ♀ in Coll. Turner.

5867. **Eustrotia noloides.** (Plate CLXVI. fig. 1.)

Acontia noloides, Butl. A. M. N. H. (5) iv. p. 366 (1879).

Head and thorax white mixed with rufous, the frons and patagia nearly pure white; palpi and antennæ rufous; tarsi brown ringed with white; abdomen white suffused with red-brown. Fore wing white slightly irrorated with brown; a triangular antemedial rufous patch on costa; the medial area rufous, except a patch beyond upper angle of cell, irrorated with black on inner half, its inner edge strongly angled outwards in cell, then inwardly oblique to vein 1; two black discoidal points with slight white annuli, the lower larger; postmedial line rufous defined by white on outer side, oblique from below costa to vein 6, slightly incurved at discal fold and strongly below vein 4, angled outwards at vein 1; postmedial area with rufous patches on costa, at middle, and on inner area and with three white points on costa; subterminal line white faintly defined by rufous on inner side and excurved below vein 7 and at middle, the area beyond it rufous except at apex and tornus, with a series of black spots rather elongate on costal half on it ending in white striæ on termen; cilia rufous, white at tornus. Hind wing whitish suffused with rufous; a fine dark terminal line; the cilia whiter; the underside whitish tinged with rufous, the costal area irrorated with rufous, a slight dark discoidal spot, indistinct, rather diffused postmedial line, and traces of subterminal line.

Hab. Japan, Yesso (*Pryer*), 1 ♂, Yokohama (*Pryer*, *Manley*). 4 ♂, 2 ♀ type. *Exp.* 18–20 millim.

5868. **Eustrotia magna.** (Plate CLXVI. fig. 2.)

Hyelopsis magna, Leech, Trans. Ent. Soc. 1900, p. 146.

♀. Head and thorax white; palpi, pectus, and legs suffused with ochreous brown, the tarsi banded with fuscous; abdomen ochreous white with a few black scales and slight dark subdorsal marks. Fore wing with the basal area white, the rest of wing ochreous brown slightly irrorated with black; some diffused brown and black on base of costa; antemedial line black, erect, waved; two black discoidal spots on a rather figure-of-8-shaped white patch connected

with a postmedial white patch on costa: postmedial line almost obsolete and bent outwards below costa on the white patch, then double, black filled in with white and minutely waved to vein 4, then slight and forming the inner edge of a white band which extends to tornus; a subterminal series of slight dentate white marks with dentate black marks before them below costa and at middle; cilia whitish mixed with ochreous and with slight dark line through them, black at apex and middle. Hind wing ochreous white suffused and irrorated with brown, especially on terminal area; a fine dark terminal line and line through the cilia; the underside ochreous white irrorated with brown, a blackish discoidal spot and curved postmedial and subterminal lines.

Hab. W. China, Ta-chien-lu (*Pratt*), 1 ♀ type. *Exp.* 24 millim.

5869. Eustrotia amorpha. (Plate CLXVI. fig. 3.)

Acontia amorpha, Butl. Trans. Ent. Soc. 1886, p. 399.

Head, thorax, and abdomen white slightly mixed with rufous; tarsi brown slightly ringed with white. Fore wing white slightly tinged and irrorated with rufous, the basal part of costa rufous with some dark scales, the medial area rufous met beyond the cell by an oblique diffused rufous fascia from apex with some dark scales on it, the terminal area suffused with rufous except towards apex; subbasal line represented by a slight white striga from costa; antemedial line double filled in with white, the inner line rufous, the outer black, erect, minutely waved; reniform a faint whitish lunule with two blackish points on it; postmedial line double, rufous filled in with white, the inner line with some blackish, minutely waved, oblique from costa to vein 6, excurved to vein 4, then incurved, some white striæ beyond it from costa; subterminal line whitish defined on inner side by rufous, angled outwards at vein 7 and excurved at middle; a terminal series of slight dark striæ; cilia rufous with a slight dark line through them. Hind wing whitish suffused with rufous; the underside white tinged with rufous and irrorated with brown, a dark discoidal point, curved postmedial line, and traces of subterminal line.

Hab. N. Australia, Port Darwin (*Buckland, Lyell*), 1 ♂, 2 ♀; Queensland, Gayndah, 1 ♂ type, Brisbane (*Turner*), 1 ♂, 1 ♀; Moreton Bay (*Diggle*), 2 ♀; N. S. Wales, Paramatta (*Lambert, Diggle, Raynor*), 6 ♂, 7 ♀. *Exp.* 20–22 millim.

5870. Eustrotia tegulata.

Acontia tegulata, Butl. Ill. Het. B. M. vii. p. 63, pl. 129. f. 1 (1889); Hmpsn. Moths Ind. ii. p. 308.

Head and thorax white with a few brown scales especially on tegulæ; antennæ ochreous ringed with fuscous; palpi and legs

tinged with ochreous and irrorated with fuscous, the tarsi fuscous ringed with ochreous; abdomen white tinged with ochreous except at base and irrorated with brown. Fore wing pure white; the costal edge blackish brown towards base; a subbasal black point in cell; an erect minutely waved black medial line with broad black-brown band on its outer side expanding towards inner margin and confluent in submedian interspace with the depressed apex of a large triangular black-brown patch on terminal area, extending on termen from apex to tornus, its upper edge irregular; some black-brown points on costa towards apex with some ochreous below them; cilia black-brown with three fine pale lines on basal half. Hind wing white tinged with ochreous brown especially on terminal area; cilia paler with a faint brownish line at middle; the underside ochreous white irrorated with brown, a dark discoidal spot and terminal series of striæ.

Hab. C. China, Foo-chau (*Leech*), 2 ♂; Punjab, Simla (*Harford*), 1 ♀, Dharmsála (*Hocking*), 3 ♂, 3 ♀ type: Madras, Shevaroys (*Campbell*), 1 ♂, Nilgiris (*Hampson*), 2 ♂. *Exp.* 22 millim.

5871. Eustrotia albibasis. (Plate CLXVI. fig. 4.)

Hyela albibasis, Hmpsn. Ann. S. Afr. Mus. ii. p. 393 (1902).

♀. Head and thorax white slightly tinged with yellow; palpi with some black scales; antennæ ringed with brown; patagia with brown and fuscous bars at base; fore legs tinged with brown; abdomen yellowish white dorsally irrorated with fuscous. Fore wing with the basal area white slightly tinged with yellow, the costal edge fuscous, the rest of wing olive-yellow thickly irrorated with black; antemedial line black defined on inner side by white, obliquely curved; traces of a blackish medial line, oblique from costa to median nervure, then slightly incurved; a white patch from costa to discal fold before the postmedial line, which is slight, blackish defined by white on outer side, oblique from costa to vein 6, slightly angled at vein 4, then incurved, an oblique white patch beyond it from costa; subterminal line indistinct, whitish defined on inner side by some black suffusion and slight black marks towards costa and in submedian interspace, angled outwards at vein 7, excurved at middle, and angled inwards in discal and submedian folds; a terminal series of black points. Hind wing yellowish almost wholly suffused with fuscous brown; cilia yellowish mixed with brown; the underside yellow irrorated with fuscous, a blackish discoidal spot and postmedial line bent inwards to costa.

Hab. Natal, Durban (*Leigh*), 1 ♀ type. *Exp.* 18 millim.

5872. Eustrotia olivula. (Plate CLXVI. fig. 5.)

Bankia olivula, Guen. Noct. ii. p. 231, pl. x. f. 8 (1852); Smith, Cat. Noct. N. Am. p. 310.

♀. Head and thorax white mixed with some olive-brown especially on head and tegulæ; tarsi ringed with olive; abdomen white irrorated with brown. Fore wing white; a triangular olive-green patch on basal costal area; a broad medial olive-green band expanding triangularly to inner margin; a black point at lower angle of cell; an olive-green mark beyond the cell before the postmedial line, which is olive-green, arising at vein 7, oblique to vein 6, and below vein 4 bent inwards and forming the outer edge of the medial band; a semicircular olive-green patch on postmedial costal area, the costal edge brown with three white points on it; a terminal olive-green band from vein 7 to 1, angled inwards at vein 5 to near postmedial line and forming a large triangular patch from it to vein 1; a terminal series of dark brown striæ; cilia reddish brown and white. Hind wing white tinged with ochreous, the termen with rufous from vein 6 to submedian fold; a fine brown terminal line; cilia white mixed with red-brown; the underside yellowish white irrorated with red-brown, the terminal area suffused with fiery red from apex to submedian fold, indistinct curved postmedial and subterminal lines.

Hab. Cape Colony, 1 ♀, Zeller Coll. *Exp.* 30 millim. The locality N. America is almost certainly a mistake.

5873. Eustrotia erecta. (Plate CLXVI. fig. 6.)

Bankia erecta, Moore, P. Z. S. 1881, p. 373; Hmpsn. Moths Ind. ii. p. 308.

Head, thorax, and abdomen white tinged with rufous; palpi brown; antennæ dark brown slightly ringed with white; fore tibiæ and the tarsi blackish slightly ringed with white. Fore wing white tinged with rufous; the basal part of costa rufous; a subbasal black point in cell; a minutely waved somewhat inwardly oblique medial black line with rather broad deep rufous band beyond it; two black discoidal points; postmedial line represented by a black striga from costa on the outer edge of the rufous band, traces of a rufous line beyond the cell, and by a black line on outer edge of the rufous band below the cell excurved towards inner margin; an oblique diffused rufous wedge-shaped patch from apex to vein 5 with two dark points on it at costa; subterminal line with black striga from costa, then slight, whitish, excurved, the area beyond it rufous; cilia rufous at base, black mixed with whitish at tips. Hind wing whitish tinged with brown; cilia whitish with dark line at middle and dark tips; the underside ochreous white irrorated with fuscous, a black discoidal point and traces of a postmedial line oblique below vein 6.

Hab. Madras, Belgaum (*Watson*), 2 ♀, Nilgiris (*Hampson*), 4 type; Travancore, Pirmád (*Mrs. Imray*), 1 ♂, 1 ♀. *Exp.* 20–26 millim.

5874. Eustrotia latifasciata. (Plate CLXVI. fig. 7.)

Hyela latifasciata, Hmpsn. J. Bomb. Nat. Hist. Soc. xi. p. 446 (1897).

♀. Head, thorax, and abdomen ochreous irrorated with brown: tarsi blackish ringed with white. Fore wing ochreous irrorated with red-brown, the medial area black-brown, the terminal area suffused with black-brown leaving whitish patches on termen below apex and above tornus; some black-brown on basal costal area; antemedial line black defined on inner side by white, excurved in cell and submedian fold; reniform represented by a figure-of-8-shaped white mark with black centres to upper and lower parts; postmedial line black defined on outer side by white, connected with upper and lower extremities of the reniform and strongly excurved beyond it, waved from it to inner margin; some white points on terminal part of costa; subterminal line white, angled outwards at vein 7, excurved at middle and angled inwards at discal and submedian folds; a terminal series of black points; cilia ochreous and fuscous. Hind wing fuscous brown; a fine dark terminal line; cilia ochreous with a brown line through them; the underside ochreous white irrorated with brown, a black discoidal spot and irregularly sinuous postmedial line.

Hab. Bombay, 1 ♀ type. *Exp.* 18 millim.

5875. Eustrotia inconcisa. (Plate CLXVI. fig. 8.)

Acontia inconcisa, Butl. A. M. N. H. (5) x. p. 229 (1882).

♀. Head and thorax white; fore legs tinged with brown, the tarsi fuscous ringed with white; abdomen white irrorated with brown. Fore wing white; a triangular olive-brown patch on basal costal area; a medial olive-brown band from costa to median nervure and a patch in submedian interspace; an olive-brown spot beyond the cell met by a broad oblique fascia from apex and with the incurved postmedial line from cell to inner margin; two white points on costa towards apex; the terminal area irrorated with brown and with subterminal black points in discal fold and below veins 4 and 3; a terminal series of dark points; cilia with a punctiform brown line through them and some brown at tips. Hind wing white tinged with brown especially on terminal area; cilia with a brown line through them; the underside irrorated with brown, a brown discoidal spot and curved postmedial line.

Hab. Union Is., Duke of York I., 1 ♀ type. *Exp.* 20 millim.

5876. Eustrotia ruptifascia.

Acontia ruptifascia, Hmpsn. Ill. Het. B. M. viii. p. 75, pl. 145. f. 12 (1891), id. Moths Ind. ii. p. 308.

Head and thorax white; palpi ochreous with some black scales; antennæ brown; neck with ochreous brown ring; legs ochreous, the tarsi banded with brown; abdomen ochreous irrorated with fuscous. Fore wing pure white; costal edge ochreous towards base; two subbasal black points on costa and a point in cell; a broad medial black-brown band with slightly sinuous edges, expanding somewhat at middle and towards inner margin; a black point at lower angle of cell and a slight black mark in discal fold beyond the cell; an oblique wedge-shaped black-brown patch with irregular edges from apical part of costa to discal fold; a subterminal black-brown bar at middle: a terminal series of black striæ; cilia ochreous mixed with black on inner half. Hind wing ochreous white tinged with fuscous; cilia ochreous with brownish line at middle and brown tips; the underside ochreous irrorated with fuscous, a dark discoidal spot and indistinct diffused curved postmedial line.

Hab. Madras, Wynád (*Cardew*), 1 ♀, Nilgiris (*Hampson*), 1 ♂ type. *Exp.* 22 millim.

5877. Eustrotia thermozona, n. sp. (Plate CLXVI. fig. 9.)

♂. Head and thorax white slightly mixed with rufous; palpi and antennæ pale rufous; tarsi fuscous ringed with white; abdomen white tinged with rufous. Fore wing silvery white; the basal part of costal area bright rufous interrupted by a slight white antemedial striga; a subbasal black point in cell; an erect minutely waved black medial line with a broad bright rufous band beyond it, its outer edge minutely waved; postmedial line represented by a slight dark striga from costa on the outer edge of the rufous band and a sinuous black striga beyond the cell; terminal area bright rufous, narrowing to tornus; subterminal line rather diffused, blackish, curved, with some white points on it; cilia white with slight fuscous spots at tips and fuscous patch at tornus. Hind wing white faintly tinged with rufous, the terminal area suffused with rufous except towards tornus; cilia white; the underside white tinged with rufous especially at costa, traces of a waved postmedial line from costa to vein 5.

Hab. N. Australia, Port Darwin (*Buckland*), 1 ♂ type. *Exp.* 18 millim.

5878. Eustrotia ritsemæ.

Erastria ritsemæ, Snell. Tijd v. Ent. xxiii. p. 57, pl. v. f. 2 (1880).
Acontia vitiensis, Butl. Trans. Ent. Soc. 1886, p. 399.
Erastria albofusca, Pag. Jahrb. Nass. Ver. xli. p. 133 (1888).

Head and thorax white, the head, tegulæ, base of patagia, and

prothorax suffused with golden brown; palpi with deeper golden brown marks at side of 2nd joint; pectus, legs, and abdomen white tinged with golden brown. Fore wing white, the basal part of costa golden brown interrupted by a white antemedial striga defined by black on inner side bent inwards as a short streak in cell; a minutely waved erect black medial line, the area beyond it golden brown to the postmedial line with the contiguous ill-white, figure-of-8-shaped, with black points in its upper and lower parts; postmedial line double, blackish filled in with white, the outer line almost obsolete except beyond the cell, oblique from costa to vein 6, slightly angled inwards at discal fold, incurved below vein 4 and slightly angled outwards at vein 1; terminal area golden brown, extending to postmedial line between veins 6 and 4; some blackish points on costa towards apex; a rather diffused curved blackish subterminal line with a few white scales on it; cilia white with some brown scales and a black line at middle. Hind wing whitish tinged with rufous especially towards termen; cilia whiter with a faint brown line through them; the underside whitish tinged with rufous, the costal area slightly irrorated with brown, traces of a curved postmedial line from costa to vein 5.

Ab. 1. Fore wing with the medial band much narrower from costa to lower angle of cell, then obsolete and represented by a point above vein 1 and sometimes a point on inner margin.—New Hebrides.

Hab. Borneo, Kuching (*Shelford*), 1 ♀; Amboina, type † ♂ *albofusca* in Coll. Pagenstecher; Celebes; New Hebrides (*Mathew*), 2 ♂, 2 ♀; Solomon Is., Alu (*Woodford*), 2 ♂, 2 ♀; N. Australia, Port Darwin (*Lyell*), 1 ♀; Queensland, Brisbane (*Turner*), 1 ♂, 1 ♀, Moreton Bay (*Diggle*), 1 ♂; N. S. Wales (*Raynor*), 2 ♀; Fiji, 2 ♂, 1 ♀ type *vitiensis*; Samoa, Pago (*de la Grade*), 1 ♂; Cook's Is., Rarotonga (*de la Grade*), 1 ♂; Tahiti (*J. J. Walker, Mathew, Nicholl*), 2 ♂, 8 ♀. *Exp.* 18-22 millim.

5879. Eustrotia quadripartita. (Plate CLXVI. fig. 10.)

· *Acontia quadripartita*, Wlk. xxxiii. 786 (1865); Hmpsn. Moths Ind. ii. p. 308.

Head and tegulæ ochreous white, the palpi with black patches at sides; antennæ black slightly ringed with white, the tegulæ with black mixed; thorax black in front, white behind; pectus and legs ochreous white, the fore tibiæ and the tarsi banded with black; abdomen ochreous white irrorated with black. Fore wing pure white; the costal edge black at base, a subbasal black point in cell; a broad black medial band, its outer edge minutely waved, its outer slightly angled outwards below costa and at lower angle of cell; terminal area with a large triangular black patch with two white points on it at costa and extending on termen to just above tornus, slightly tinged with grey towards termen on which there

is a series of black points; cilia greyish black, with two slight black lines near base. Hind wing white tinged with fuscous; a fine dark terminal line; cilia with a faint dark line through them; the underside ochreous white irrorated with fuscous, a dark discoidal spot and diffused curved postmedial line.

Hab. Punjab (*Boys*), 1 ♂ type, Simla (*Harford*), 2 ♂, 1 ♀, Dharmsála (*Hocking*), 4 ♂, 5 ♀, Kangra Valley (*Dudgeon*), 3 ♂, Jubbulpur, 1 ♂, Manpuri, 1 ♂; Sikhim (*Pilcher*). 1 ♂; Bombay, Kutch, 1 ♂, Bombay (*Leith*), 1 ♀, Bandra (*Jayakar*), 1 ♂; Madras, Gooty (*Campbell*), 1 ♂, Cuddapah (*Campbell*), 1 ♂, Nilgiris (*Hampson*), 4 ♀; Burma, Thayetmyo (*Watson, Cory*), 2 ♀. *Exp.* 14–18 millim.

5880. **Eustrotia phæozona**, n. sp. (Plate CLXVI. fig. 11.)

Maliattha signifera, Hmpsn. Mon. Christmas I. p. 68 (1900), nec Wlk.

Head and thorax white tinged with rufous; palpi with some brown at sides; tarsi blackish ringed with white; abdomen white suffused with rufous leaving slight white segmental lines. Fore wing pure white irrorated with a few dark scales; the basal part of costa with a black-brown fascia slightly defined below by black and interrupted by a white subbasal striga; a medial dark brown band, its edges defined by minutely waved black lines, its inner edge erect, its outer angled outwards beyond lower angle of cell, defining the lower part of the white reniform, which is constricted at middle and with a sinuous black mark on its outer edge before the hardly traceable double postmedial line, oblique from costa to vein 6 and incurved below vein 4, with an oblique diffused brown fascia from apex to it beyond the cell; subterminal line white slightly defined on inner side by brown, the area beyond it suffused with brown, excurved below vein 7 and at middle; a terminal series of slight dark striæ; cilia brown and white with a dark line through them. Hind wing white suffused with reddish brown; cilia white with a dark line through them; the underside whitish tinged and irrorated with brown, a slight discoidal point and curved minutely waved postmedial line.

Hab. Christmas I. (*Andrews, Wood-Jones*), 5 ♂, 4 ♀ type. *Exp.* 18–20 millim.

5881. **Eustrotia euryzona**, n. sp. (Plate CLXVI. fig. 12.)

♀. Head and thorax pale ochreous; antennæ fuscous; legs tinged with fuscous; abdomen pale ochreous dorsally tinged with fuscous. Fore wing ochreous with a rufous tinge; a subbasal black bar from costa to submedian fold; a broad black medial band, its inner edge strongly excurved, its outer edge incurved below the cell, a black spot beyond it at lower angle of cell. Hind wing pale

ochreous suffused with fuscous; cilia pale ochreous; the underside ochreous white irrorated with black, a small discoidal spot and indistinct diffused curved postmedial line.

Hab. Madras, Belgaum (*Watson*), 1 ♀ type. *Exp.* 22 millim.

5882. Eustrotia lixiva. (Plate CLXVI. fig. 13.)

Tripudia lixiva, Grote, Can. Ent. xiv. p. 173 (1882); Smith, Cat. Noct. N. Am. p. 315.
Eustrotia numa, Druce, Biol. Centr.-Am., Het. i. p. 312 (part.).

Head and thorax pale ochreous slightly tinged with rufous; palpi, pectus, and legs whitish tinged with brown, the fore tibiæ and the tarsi banded with black; abdomen pale ochreous irrorated with brown, the ventral surface whitish. Fore wing pale ochreous tinged with rufous and with slight dark irroration; a subbasal black striga from costa; antemedial line with black striga from costa, then faint and slightly angled inwards in cell; a wedge-shaped black-brown patch on medial area, its apex truncate and extending to subcostal nervure, edged with black lines slightly defined by silvery white; a black-brown spot on middle of costa with oblique black striga from it to the medial patch; postmedial line hardly traceable, rufous, bent inwards to lower angle of cell, then oblique, sinuous; subterminal line defined on inner side by a blackish patch on costal area with a pale point on costa, then slightly by brown, excurved below vein 7 and at middle and obsolete below submedian fold; a terminal series of black points; cilia with blackish patches at apex, middle, and tornus. Hind wing pale rufous; a fine brown terminal line; cilia whitish at tips; the underside ochreous slightly irrorated with brown.

Hab. U.S.A., Arizona, Huachuca Mts., 1 ♂; Mexico, Durango (*Becker*), 1 ♀, Godman-Salvin Coll. *Exp.* 22 millim.

*5883. Eustrotia basicinerea. (Plate CLXVI. fig. 14.)

Tripudia basicinerea, Grote, Bull. U.S. Geol. Geog. Surv. Terr. vi. p. 563 (1882); Smith, Cat. Noct. N. Am. p. 315.

Head, thorax, and abdomen grey. Fore wing with the basal half grey, the terminal half suffused with pale red-brown; a somewhat incurved medial velvety black band outwardly oblique towards inner margin and not reaching costa on which there are two small dark spots, the band defined on outer side by pale and dark lines; reniform pale, round, some dark points on postmedial part of costa; subterminal line pale defined on inner side slightly by fuscous, excurved below vein 7 and at middle; a fine dark terminal line; cilia blackish with a pale line at base. Hind wing pale suffused with brown; the underside tinged with ochreous, an indistinct double postmedial line.

Hab. U.S.A., Arizona. *Exp.* 26 millim. This species is unknown to me; figured from a photograph in U.S. Nat. Mus. taken from type.

5884. **Eustrotia orthozona**, n. sp. (Plate CLXVI. fig. 15.)

♂. Head, thorax, and abdomen greyish ochreous slightly irrorated with brown; palpi whitish with fuscous patch at side of 2nd joint; lower part of frons whitish; pectus, legs, and ventral surface of abdomen whitish tinged with brown, the fore tibiæ and the tarsi banded with blackish. Fore wing greyish ochreous, the basal area finely pencilled with brown; minute subbasal and antemedial black striæ from costa with a blackish streak between them; a medial black-brown band defined by white lines and some silvery suffusion, slightly constricted in cell, its inner edge incurved below the cell; postmedial area with two blackish points on costa; subterminal line silvery, defined on inner side by a blackish mark at costa, then slightly by brown, excurved below vein 7 and at middle; cilia black-brown. Hind wing red-brown with a greyish tinge; a fine brown terminal line; the underside ochreous white irrorated with brown, a dark discoidal spot and terminal series of small black lunules.

Hab. U.S.A., Texas, Kerrville, 1 ♂ type. *Exp.* 18 millim.

5885. **Eustrotia trigonodes**, n. sp. (Plate CLXVI. fig. 16.)

Head, thorax, and abdomen grey-brown; pectus, legs, and ventral surface of abdomen whitish tinged with brown, the tarsi blackish ringed with white. Fore wing purplish grey tinged and irrorated with brown, the terminal area suffused with reddish brown; antemedial line indistinct, double, excurved below costa and above inner margin; a black point in middle of cell; reniform obscurely defined by diffused brown, elliptical; medial line oblique from costa to below vein 3, then inwardly oblique, a triangular dark brown patch before it from subcostal nervure to inner margin; two dark marks above it on costa; postmedial line with small dark spot at costa, slightly excurved below costa and oblique below vein 3, a dark shade beyond it on postmedial area; subterminal line pale, slightly incurved below costa and excurved at middle; the terminal area with whitish patch at apex and dark patches above and below middle; a terminal series of small black spots with blackish streaks before them except on apical area. Hind wing whitish suffused with cupreous brown; the underside white irrorated with red-brown, a faint discoidal spot and diffused curved postmedial line.

Hab. Br. E. Africa, Eb Urru (*Betton*), 1 ♂, 1 ♀ type. *Exp.* 28 millim.

5886. **Eustrotia genuflexa.** (Plate CLXVI. fig. 17.)

Xanthoptera genuflexa, Hmpsn. Ann. S. Afr. Mus. ii. p. 398 (1902).

♂. Head and thorax red-brown with a greyish tinge; palpi at base and pectus whitish; legs brown mixed with whitish, the tarsi ringed with white; abdomen grey suffused with yellow-brown, the ventral surface white. Fore wing with the basal half purple-brown, the terminal half olive-ochreous; subbasal line represented by two blackish striæ from costa; antemedial line very indistinct, rufous, waved, with blackish point at costa; a blackish medial line with chocolate-brown band before it, whitest at middle, oblique from costa to median nervure, then inwardly oblique, slightly defined by whitish on outer side; a few black scales on discocellulars; postmedial line very indistinct, double, with blackish mark at costa, bent outwards below costa, then oblique and touching the medial line below the cell; subterminal line whitish defined on inner side by dark brown, excurved at middle; terminal area with purplish brown patches above middle and towards tornus; a terminal series of small black lunules; cilia fuscous and grey. Hind wing orange fulvous, the costal area suffused with brown; cilia pale brownish; the underside orange.

♀. Fore wing with some fiery red suffusion before subterminal line.

Hab. Damaraland; Cape Colony, Annshaw (*Miss F. Barrett*), 1 ♂, 1 ♀ type. *Exp.* 24–26 millim.

5887. **Eustrotia catoxantha**, n. sp. (Plate CLXVI. fig. 18.)

♂. Head and thorax grey tinged with rufous; abdomen yellowish irrorated with rufous; pectus, legs, and ventral surface of abdomen white, the fore and mid tibiæ and the tarsi blackish ringed with white. Fore wing grey irrorated with fuscous, the medial area chocolate-brown, the terminal area tinged with rufous; subbasal line indistinct, brown, from costa to submedian fold; antemedial line indistinct, double, waved, somewhat oblique; medial line double, the inner line angled outwards on subcostal and median nervures, then excurved, the outer oblique from costa to lower angle of cell, then incurved; reniform defined by an oblique white striga on the outer medial line and a small wedge-shaped brown mark beyond its upper extremity; postmedial line defined on inner side by a dark shade, deeper at costa, excurved to vein 4, then incurved, followed by a grey-white band, then a rufous shade before the subterminal line, which is slight and greyish defined on inner side by red-brown, excurved at middle and bent outwards to tornus; a grey-white apical patch; a punctiform blackish terminal line. Hind wing yellow, uniform on upper and under sides.

Hab. Orange R. Colony, Bloemfontein (*Eckersley*), 2 ♂ type. *Exp.* 22 millim.

5888. **Eustrotia albifascia.** (Plate CLXVI. fig. 19.)

Anthœcia albifascia, Wlk. xxxiii. 771 (1865).

♀. (Head wanting); thorax red-brown (abdomen wanting). Fore wing red-brown; subbasal line represented by a slight blackish striga from costa; antemedial line very indistinct, double, oblique, sinuous; orbicular represented by a minute pale spot defined by black scales; medial line black, slightly angled outwards below costa, oblique to vein 2, then erect, sinuous, a broad diffused grey-white band beyond it with the small reniform on it, faintly defined by brown and with black point on centre of outer edge; postmedial line on the whitish band, very indistinct, brown, bent outwards below costa, excurved to vein 4, then incurved, some white points beyond it on costa; subterminal line slight, white, double below vein 7, angled outwards at veins 6, 4, 1, with slight black streaks beyond it above and below discal fold and below vein 3; a terminal series of black points. Hind wing orange-yellow slightly irrorated with red-brown, the terminal area suffused with red-brown; a fine dark terminal line; cilia brown with yellow line at base and whitish tips.

Hab. Cape Colony (*Sir A. Smith*), 1 ♀ type. *Exp.* 24 millim.

5889. **Eustrotia citripennis,** n. sp. (Plate CLXVI. fig. 20.)

♂. Head and thorax dark olive-brown mixed with some grey; abdomen whitish tinged with brown; palpi, pectus, legs, and ventral surface of abdomen white slightly irrorated with brown, the fore and mid tibiæ and the tarsi black ringed with white. Fore wing with the basal half black-brown, tinged with grey to the antemedial line, the postmedial area white, the terminal area grey suffused with black-brown; subbasal line represented by double black striæ from costa; antemedial line indistinctly double, angled outwards below costa, then minutely waved; medial line double, the inner line indistinct, waved, the outer black, oblique and sinuous below the cell; reniform represented by a brownish bar with two black points beyond it; postmedial line brownish with black spot at costa, excurved round the cell, then bent inwards to lower angle and erect to inner margin, some white points beyond it on costa; subterminal line slight, whitish, angled outwards at vein 7, then minutely waved, excurved at middle and bent outwards to tornus; the apex whitish; a punctiform black terminal line with some white at middle and tornus. Hind wing pale yellow, the termen suffused with brown from apex to vein 2; a fine dark terminal line; cilia tinged with brown at base, white at tips; the underside with apical fuscous patch.

Hab. Br. E. Africa, Machakos (*Crawshay*), 1 ♂ type. *Exp.* 24 millim.

5890. Eustrotia decissima.

Microphysa decissima, Wlk. xxxiii. 805 (1865).
Erastria africana, Feld. Reis. Nov. pl. 108. f. 6 (1874).

Head and thorax dark reddish brown mixed with some purplish grey; pectus and legs whitish, the tarsi brown-ringed with white; abdomen purplish brown with slight ochreous white segmental lines, the ventral surface whitish. Fore wing dark red-brown suffused with purplish grey; subbasal line double, blackish, waved, from costa to vein 1; antemedial line double, the lines widely separated, waved; medial line double, the inner line indistinct, waved, oblique from costa to below the cell, followed by a broad diffused white band; a dark discoidal bar with a black spot beyond it; postmedial line dark brown defined on outer side by white, slightly bent outwards below costa, then minutely waved, excurved to vein 4, then incurved; the postmedial area with some white points on costa, traces of a waved postmedial line and a slight black streak below vein 7; subterminal line slight, white, excurved below vein 7 and at middle, and with short black streaks beyond it above and below vein 5 and below vein 3; a terminal series of small black lunules. Hind wing whitish suffused with fuscous brown; cilia whitish tinged with brown at base; the underside ochreous white irrorated with brown, the terminal area suffused with black-brown, a black discoidal spot and indistinct sinuous postmedial line.

Hab. Zanzibar (*de la Garde*), 1 ♂; Br. E. Africa, Eb Urru (*Betton*), 2 ♂, 2 ♀; Mashonaland, Umtali (*Marshall*), 1 ♂; Rhodesia, Bulawayo (*Eyles*), 1 ♀; Transvaal, Warmbad (*Jause*), 1 ♀; Natal, Durban (*Gooch*, *Leigh*), 5 ♂, 2 ♀. *Exp.* 20–24 millim.

5891. Eustrotia mianoides.

Ozarba mianoides, Hmpsn. Ill. Het. B. M. ix. p. 98, pl. 162. f. 16 (1893); id. Moths Ind. ii. p. 317.

♂. Head and thorax red-brown mixed with some greyish; palpi at base, pectus, and legs whiter; abdomen brown with whitish segmental lines, the ventral surface whitish. Fore wing dark reddish brown mixed with some grey, a broad ochreous white band tinged with rufous beyond the medial line; subbasal line indistinct, double, waved, from costa to submedian fold, some black beyond its lower extremity; antemedial line indistinct, double, waved; medial line double, the inner line indistinct, waved, the outer black and bounding the dark area, slightly angled outwards below costa and bent inwards at submedian fold; a black discoidal point; postmedial line very indistinct, excurved from below costa to vein 4, then bent inwards to lower angle of cell and sinuous to inner margin, some pale points beyond it on costa with dark streaks between them; subterminal line whitish excurved below vein 7 and at middle and incurved at discal and submedian folds, short black

streaks beyond it above and below vein 5 and below vein 3; a terminal series of small black lunules; cilia dark brown and greyish. Hind wing fuscous brown; cilia whitish, tinged with brown at base; the underside ochreous white irrorated with dark brown, the terminal area suffused with black-brown, a small discoidal spot and diffused curved postmedial line.

♀. Fore wing with the postmedial area white with grey patch beyond the cell, the postmedial line more distinct.

Hab. Br. E. Africa, Taveta (*Rogers*), 1 ♀, Sabaki R. (*Gregory*), 2 ♀; Ceylon, Colombo (*Neitner*), 8 ♂, 3 ♀, Pundaloya (*Green*), 1 ♂ type. *Exp.* 22–26 millim.

5892. Eustrotia opella.

Acontia opella, Swinh. P. Z. S. 1885, p. 456, pl. 27. f. 16; Hmpsn. Moths Ind. ii. p. 317.
Eublemma orthopetes, Meyr. Trans. Ent. Soc. 1897, p. 375.

♂. Head and thorax grey-brown mixed with red-brown; palpi, lower part of frons, pectus, and legs whitish, the last irrorated with brown, the tarsi brown ringed with whitish; abdomen ochreous white dorsally suffused with fuscous brown leaving pale segmental lines. Fore wing greyish ochreous, the basal area irrorated with dark brown, the medial area with black-brown band, the terminal area black-brown except towards apex; the basal costal area black-brown interrupted by a pale subbasal striga; antemedial line blackish, obliquely curved; the medial dark band with diffused streaks of silvery scales on the veins, bounded by black lines, the inner line somewhat dentate, the outer excurved from below costa to submedian fold; a slight black discoidal bar: postmedial line dark brown defined on inner side by silvery scales, excurved from below costa to vein 4, then incurved, defined on outer side by a pale line followed by an olive-brown band with two pale points on costa; subterminal line silver defined on inner side by black except towards costa, slightly excurved below vein 7 and at middle; a terminal series of black points; cilia silvery grey mixed with fuscous. Hind wing greyish suffused with fuscous brown, a fine dark terminal line; cilia whitish at tips; the underside greyish irrorated with fuscous, an indistinct discoidal spot and diffused curved postmedial line.

Ab. 1. Fore wing with the basal half, and the hind wing blacker.

Ab. 2. Fore wing without the silvery markings, the postmedial area more rufous.

Ab. 3. Fore wing with the basal area paler and tinged with rufous.

Ab. 4. Fore wing with the medial dark band reduced to a small black spot in cell on its outer edge.

Hab. Mashonaland, Zambesi (*Longstaff*), 1 ♀; Punjab, Simla (*Harford*), 1 ♂, Cambellpur (*Yerbury*), 1 ♀, Jubbulpur, 1 ♂.

Cawnpore (*Betton*), 1 ♂ ; Sikhim, 1800′ (*Dudgeon*), 1 ♂ ; Sind, Karachi, 2 ♂ ; Bombay, Kutch, 3 ♂, 2 ♀, Deesa (*Nurse*), 2 ♀, Poona (*Swinhoe*), 1 ♂ type, Mahableswar (*Swinhoe*), 3 ♂, N. Kanara, Karwar (*Bell*), 1 ♀ ; Madras, Palnis (*Campbell*), 1 ♀ ; Queensland, Duaringa, type † ♂ *orthopetes* in Coll. Meyrick. *Exp.* 18–22 millim.

5893. **Eustrotia leucopera**, n. sp. (Plate CLXVI. fig. 21.)

♂. Head and thorax white slightly tinged with ochreous ; palpi ochreous at base, white at tips; antennæ brown ; abdomen white irrorated with fuscous ; pectus, legs, and ventral surface of abdomen white, the fore tibiæ and tarsi black ringed with white. Fore wing with the base and medial area black, the antemedial area ochreous, the postmedial area white shading to yellow before the terminal area, which is blackish with a white patch at apex ; an antemedial black point above vein 1 and some black points on the inner edge of the black medial area representing the antemedial line ; a slight black point in middle of cell and small discoidal lunule ; a postmedial black point on costa and a triangular patch towards apex with a fine black line from it defining the inner edge of the blackish terminal area, angled outwards at vein 6, then slightly sinuous ; a terminal series of black points and oblique white striæ below middle and at tornus. Hind wing greyish suffused with fuscous brown ; the underside white slightly irrorated with brown and with fine dark terminal line.

Hab. Madras, Horsleykonda (*Campbell*), 1 ♂ type. *Exp.* 22 millim.

5894. **Eustrotia dividua**. (Plate CLXVI. fig. 22.)

Eustrotia dividua, Grote, N. Am. Ent. i. p. 46 (1880) ; Smith, Cat. Noct. N. Am. p. 312.
Oribates opiparus, H. Edw. Papilio, i. p. 117 (1881) ; Smith, Cat. Noct. N. Am. p. 315.

♂. Head and thorax grey mixed with red-brown ; palpi with the 2nd joint brown at sides ; tarsi brown ringed with white ; abdomen grey tinged with brown, the basal crest red-brown. Fore wing with the basal area black-brown mixed with rufous and some grey, and bounded by the slightly sinuous black medial line ; subbasal line represented by a black striga from costa defined by grey on outer side ; antemedial line black defined by grey on inner side, minutely waved ; the terminal half of wing blue-grey slightly irrorated with fuscous ; a small black spot on middle of costa ; a slight black discoidal bar ; postmedial line very indistinct, slightly defined by whitish on outer side, excurved below vein 7 and at middle and bent inwards at vein 2 ; some black spots on postmedial part of costa ; a very narrow terminal rufous band slightly expanding at discal and submedian folds, and with series of slight

black points on termen; cilia greyish fuscous. Hind wing whitish tinged with red-brown; cilia with a fine whitish line at base and whitish tips; the underside whitish irrorated with red-brown, a slight discoidal spot and indistinct curved postmedial line.

♀. Fore wing with the terminal half ochreous white tinged with rufous, the medial and postmedial lines and the discoidal bar defined on outer side by silvery scales.

Hab. U.S.A., Texas, 1 ♂, 1 ♀ type, Shovel Mts., 1 ♀, Kerville, 2 ♀. *Exp.* 20 millim.

5895. Eustrotia catilina.

Eustrotia catilina, Druce, Biol. Centr.-Am., Het. i. p. 312, pl. 29. f. 5 (1889).

♀. Head and tegulæ pale rufous; palpi with some black at sides; frons with black bars at middle and above; tegulæ with black medial line; thorax black-brown mixed with some rufous; pectus and legs whitish, the tarsi black ringed with whitish; abdomen grey irrorated with brown, the ventral surface white with small black sublateral spots. Fore wing purplish fuscous irrorated with black to the medial line leaving some rufous at base of costa, the terminal half rufous slightly irrorated with black; subbasal line represented by a small black spot on costa and curved bar in submedian interspace; antemedial line indistinctly double faintly filled in with rufous and with small black spot at costa, waved; medial line black, slightly sinuous, oblique to below angle of cell, then erect, a small triangular black spot beyond it on costa; postmedial line with small black spot at costa, then indistinctly double, slightly bent outwards below costa and with some black points on it beyond the cell, incurved below vein 4, a black patch beyond it on costal area with some white points at costa and slight rufous streak below costa; subterminal line indistinctly double filled in with whitish, excurved below vein 7 and at middle; a terminal series of black points; cilia with slight blackish marks at apex and above middle. Hind wing brown with a fine dark terminal line; cilia whitish; the underside whitish irrorated with brown, the costal and terminal areas tinged with rufous, a blackish discoidal spot, rather punctiform postmedial and subterminal lines, and terminal series of small lunules.

Hab. Mexico, Tabasco, Teapa (*H. H. Smith*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 20 millim.

5896. Eustrotia longena. (Plate CLXVI. fig. 23.)

Eustrotia longena, Schaus, Trans. Am. Ent. Soc. xxx. p. 154 (1904).

♀. Head whitish mixed with rufous; thorax fuscous with some grey, the metathorax with slight rufous mark; abdomen fuscous; pectus, legs, and ventral surface of abdomen whitish tinged with

red-brown. Fore wing greyish suffused with red-brown, the medial and apical areas darker; subbasal line indistinct, oblique, dentate; antemedial line slight, waved, angled inwards on vein 1; a waved black medial line, bent inwards to costa; reniform with whitish annulus defined by black, its centre also defined by black; postmedial line double, excurved from costa to vein 6, then incurved and minutely waved, some white points beyond it on costa; subterminal line very indistinct, greyish, defined on inner side by minute dentate black marks, excurved at middle; a terminal series of black points. Hind wing dark brown with a cupreous gloss; the underside greyish suffused and irrorated with brown, a dark discoidal spot.

Hab. Venezuela, Aroa, 1 ♀. *Exp.* 22 millim.

5897. **Eustrotia phæomera**, n. sp. (Plate CLXVI. fig. 24.)

♀. Head, thorax, and abdomen fuscous black mixed with some grey; the fore tibiæ and the tarsi black ringed with white. Fore wing with the basal half black slightly mixed with grey and with some rufous in submedian interspace before and beyond the antemedial line, the terminal half rufous with some black irroration on terminal area; subbasal line very indistinct, double, from costa to submedian fold; antemedial line double, waved; orbicular a small round rufous spot defined by black; medial line black, bent inwards to costa, then nearly straight and erect; reniform with hardly traceable pale annulus, constricted at middle; postmedial line double, bent outwards below costa, then very minutely waved, incurved below vein 4, some whitish points with minute black streaks between them beyond it on costa; subterminal line indistinct, pale, defined on inner side by blackish except towards costa, minutely waved; a terminal series of minute black lunules; cilia fuscous black. Hind wing fuscous black with a fine pale line at base of cilia; the underside grey thickly irrorated with fuscous.

Hab. W. Africa (*Dudgeon*), 1 ♀ type. *Exp.* 24 millim.

5898. **Eustrotia isomera**, n. sp. (Plate CLXVI. fig. 25.)

♀. Head, thorax, and abdomen dark brown mixed with grey and slightly tinged with rufous; palpi black, grey at base and tips; fore tibiæ and the tarsi black ringed with whitish. Fore wing with the basal half brownish grey slightly irrorated with black the terminal half greyish fuscous with some rufous on costa; subbasal line represented by a black striga from costa with a black patch beyond it; antemedial line double, with two black points at costa, oblique, waved; medial line oblique and with black patch beyond it from costa to median nervure, then sinuous; a black discoidal bar; postmedial line indistinct, double, with two black points at costa with rufous between them, slightly bent outwards

below costa, then minutely waved, excurved to vein 4, then incurved, some whitish points beyond it on the rufous costal area with minute black streaks between them; subterminal line very indistinct, greyish, defined on inner side by minute black points from costa to vein 3, excurved at middle; a terminal series of black points. Hind wing glossy fuscous brown, the cilia with a fine pale line at base; the underside grey thickly irrorated with fuscous, a blackish discoidal spot with diffused bar above it from costa, and diffused postmedial line.

Hab. Sikhim, 1800′ (*Dudgeon*), 1 ♀ type. *Exp.* 24 millim.

5899. Eustrotia dimera, n. n. (Plate CLXVI. fig. 26.)

Metachrostis divisa, Hmpsn. Moths Ind. ii. p. 331 (1894), nec Saalm. 1891.

Head dark red-brown, the palpi blackish; thorax grey mixed with some dark brown, the tegulæ with brown medial line; pectus, legs, and abdomen grey tinged with rufous and irrorated with fuscous, the tarsi blackish with pale rings. Fore wing with the basal half grey irrorated with brown, the terminal half rufous, the grey angled outwards on median nervure below the reniform; subbasal line represented by double black striæ from costa and cell; antemedial line indistinctly double with black points at costa, oblique, dentate; medial line oblique and with a black patch beyond it on costal area, acutely angled outwards below the reniform and excurved below submedian fold; reniform a narrow rufous lunule with a small black spot on its outer edge; postmedial line double, with a black spot on the inner line at costa, slightly bent outwards below costa, then minutely waved, excurved to vein 4, then incurved, some whitish points beyond it on costa; subterminal line indistinct, pale, defined on inner side by a brown shade at costa, then by slight blackish lunules, excurved below vein 7 and at middle; a terminal series of black points. Hind wing grey suffused with brown especially on terminal area, the cilia pale; the underside brownish grey irrorated with brown, a blackish discoidal spot with oblique bar above it from costa, curved postmedial line, maculate subterminal line, and terminal series of black points.

Hab. Punjab, Kulu (*Dudgeon*), 1 ♂; Sikhim, type † ♀ in Coll. Rothschild; Assam, Khásis, 1 ♂. *Exp.* 28–32 millim.

5900. Eustrotia bipars.

Ozarba bipars, Hmpsn. Ill. Het. B. M. viii. p. 75, pl. 145. f. 2 (1891); id. Moths Ind. ii. p. 329.

♂. Head, thorax, and abdomen fuscous brown mixed with grey; palpi, pectus, legs, and ventral surface of abdomen white irrorated with fuscous, the 2nd joint of palpi with white ring at extremity,

the fore tibiæ and the tarsi blackish ringed with white. Fore wing with the basal half grey suffused with purplish fuscous, the terminal half purplish brown tinged with leaden grey, the costa with small pink spots; subbasal line indistinct, pale, from costa to submedian fold; antemedial line indistinct, whitish, nearly straight to vein 1, then excurved; reniform grey with white annulus except above and below, defined by black spots and points except above and constricted at middle; postmedial line fuscous defined on each side by grey, bent outwards below costa, then inwardly oblique, slightly incurved at discal and submedian folds, with slight blackish streaks beyond it above and below vein 6 and slight blackish mark before it in submedian fold; subterminal line fine, white, minutely dentate, angled inwards in discal fold and incurved in submedian interspace; a terminal series of black points. Hind wing fuscous brown with a greyish tinge, the cilia pale reddish brown; the underside whitish thickly irrorated with fuscous brown, a small black discoidal spot and diffused maculate postmedial and subterminal lines.

♀. Head, thorax, and fore wing paler and much redder; both wings with the cilia pinkish.

Hab. Madras, Nilgiris (*Hampson*), 1 ♂, 1 ♀ type. *Exp.* 34 millim.

5901. Eustrotia excavata. (Plate CLXVI. fig. 27.)

Grammodes excavata, Wlk. xxxiii. 973 (1865); Hmpsn. Moths Ind. ii p. 329.

Head, thorax, and abdomen dark red-brown mixed with grey; the fore tarsi black ringed with white. Fore wing with the basal half grey thickly irrorated with dark red-brown, the terminal half chocolate-red mixed with some grey; subbasal line double, red-brown, from costa to submedian fold; antemedial line double, red-brown, slightly sinuous, a somewhat diffused red-brown line before it; reniform with slight grey annulus defined by black striæ and points, open above; postmedial line double filled in with whitish, angled outwards below costa, then oblique and defined on outer side by whitish, some grey before and beyond it at costa and some pale rufous points beyond it on costa; subterminal line grey, slightly sinuous to vein 3, then waved; a terminal series of slight brown lunules; cilia with grey lines at base and near tips. Hind wing reddish brown tinged with grey; cilia grey at base and tips; the underside white irrorated with brown, the discal area tinged with yellowish, a slight discoidal point and indistinct postmedial and subterminal lines.

Hab. Madras, Nilgiris (*Hampson*), 2 ♂, 1 ♀, Coimbatore (*Wallhouse*), 1 ♀ type. *Exp.* 30–32 millim.

5902. **Eustrotia ozarbica**, n. sp. (Plate CLXVI. fig. 28.)

Head, thorax, and abdomen dark brown tinged with grey; pectus, legs, and ventral surface of abdomen whitish tinged with rufous, the tarsi blackish ringed with white. Fore wing dark red-brown suffused with purplish grey, an oblique medial shade and the terminal area more chocolate-red; antemedial line indistinct, double, slightly excurved below costa, then somewhat oblique; a black discoidal bar; postmedial line double filled in with ochreous white, angled outwards below costa, then oblique with an ochreous white band on its outer side, a black point before it at discal fold, and some pale points beyond it on costa; subterminal line slight, pale, incurved below vein 3; cilia with fine pale lines at base and near tips. Hind wing brown tinged with grey; the cilia with fine whitish line at base and pale tips; the underside white thickly irrorated with dark brown, an indistinct diffused postmedial line.

Hab. Madras, Belgaum (*Watson*), 3 ♂, 3 ♀ type, Nilgiris, 2 ♀; Travancore, Pirmád (*Mrs. Imray*), 1 ♀. *Exp.* 20–26 millim.

5903. **Eustrotia catæa.**

Eustrotia catæa, Druce, Biol. Centr.-Am., Het. i. p. 311, pl. 29. f. 3 (1889).

♀. Head, thorax, and abdomen red-brown; palpi with whitish ring at extremity of 2nd joint; pectus, legs, and ventral surface of abdomen paler, the tarsi brown ringed with white. Fore wing yellowish white, the terminal area deep red-brown, the costa red-brown to middle; a subbasal black striga from costa; a slight waved brown antemedial line; a black point in middle of cell and slight oblique irregular discoidal bar; a diffused black-brown medial shade, angled outwards and obsolescent in cell; postmedial line with two black striæ from costa, bent outwards and almost obsolete below costa, then double filled in with white, angled strongly inwards in submedian fold from below vein 4 and excurved above inner margin, some white points beyond it on costa; subterminal line hardly traceable; a fine white line at base of cilia. Hind wing dark cupreous red-brown; a fine white line at base of cilia; the underside slightly irrorated with whitish.

Hab. Guatemala, Las Mercedes (*Champion*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 24 millim.

5904. **Eustrotia cnossia.**

Pseudina cnossia, Druce, Biol. Centr.-Am., Het. i p. 311. pl. 28. f. 28 (1889).

Head, thorax, and abdomen whitish tinged with rufous. Fore wing whitish irrorated and suffused with rufous, the medial area and a triangular patch on terminal area more deeply suffused; subbasal line rufous defined on outer side by whitish, curved, from

costa to submedian fold; antemedial line indistinctly double filled in with white, oblique from costa to submedian fold, then sinuous; claviform represented by an oblique white streak between ante- and postmedial lines defined by brown above; the orbicular represented by an obliquely curved white streak on its upper edge defined by dark brown above; reniform with white annulus slightly defined by brown, rather concave towards base, some dark brown suffusion between the stigmata bisected by a white streak in discal fold; postmedial line indistinctly double filled in with white, strongly bent outwards below costa, then oblique, slightly bent outwards at vein 4 and produced to minute dark streaks on the veins; subterminal line indistinct, pale defined on inner side by brown suffusion and with slight dark streaks before it above middle, slightly excurved below vein 7, incurved at discal fold and excurved at middle; a terminal series of black striæ defined on inner side by a white line. Hind wing whitish suffused with pale rufous; a fine dark terminal line; cilia whitish tinged with ochreous at base; the underside ochreous white.

Hab. Mexico, Presidio (*Forrer*), 1 ♂, 2 ♀ type, Godman-Salvin Coll. *Exp.* 22–26 millim.

5905. Eustrotia culta. (Plate CLXVI. fig. 29.)

Navosa culta, Butl. A. M. N. H. (5) iv. p. 356 (1879); Kirby, Cat. Lep. Het. p. 529.

Head and thorax pinkish tinged with brown; abdomen rufous, the ventral surface brownish ochreous. Fore wing pale pinkish slightly irrorated with red-brown; subbasal line brown, from costa to submedian fold; antemedial line brown, somewhat diffused and oblique; a broad medial red-brown band, narrower on costal area; reniform pale, oblique, with brown striga at middle; an oblique black patch beyond the discocellulars, its outer edge angled at middle; postmedial line double at costa, obliquely excurved from below costa to vein 4, then dentate, some pale points beyond it on costa; subterminal line defined on inner side by red-brown and by a diffused blackish patch on costal area, minutely dentate; a fine lunulate black terminal line. Hind wing greyish suffused with golden brown; a punctiform dark terminal line; the underside brownish white thickly irrorated with brown, a small discoidal spot, indistinct sinuous postmedial line, and terminal series of black striæ.

Hab. Japan, Yokohama (*Pryer*), 1 ♂, 4 ♀ type. *Exp.* 22–26 millim.

5906. Eustrotia costimacula.

Erastria costimacula, Oberth. Ét. Ent. v. p. 83, pl. 4. f. 4 (1880); Staud. Cat. Lep. pal. p. 231.

Head and thorax white, the former tinged with rufous, the latter with brown mixed, the tegulæ brown at tips; abdomen

white dorsally suffused with golden brown leaving pale segmental lines, ventrally irrorated with brown. Fore wing white tinged with rufous and slightly irrorated with black, the basal costal area whiter; a subbasal blackish striga from costa followed by a triangular chocolate-brown patch; antemedial line represented by a black point on costa, then by a faint whitish band slightly defined at sides by brown; an oblique triangular black discoidal mark defined by white except above and with a chocolate-brown patch above it on costa; postmedial line slight, brown defined on outer side by white, excurved from below costa to vein 4, then incurved, some white points beyond it on costa with slight dark streaks between them; a subterminal series of minute blackish points, incurved below vein 3; a fine white terminal line; cilia brown. Hind wing brownish grey with a fine dark terminal line; the underside whitish tinged with brown, the costal area irrorated with brown, a discoidal point and indistinct postmedial line oblique below discal fold.

Hab. E. Siberia, Ussuri, 1 ♂; Japan, Yokohama (*Pryer*), 2 ♂, 4 ♀; C. China, Ichang (*Mrs. Pratt*), 1 ♂. *Exp.* 22–24 millim.

5907. Eustrotia semialba. (Plate CLXVI. fig. 30.)

Metachrostis semialba, Hmpsn. Moths Ind. ii. p. 332 (1904).

Head and thorax pure white; palpi with the 2nd joint brown at sides; antennæ brown; tibiæ and tarsi tinged with brown; abdomen white dorsally suffused with ochreous. Fore wing pure white, the apical area suffused with red-brown from middle of costa to termen above tornus; the costal edge brown towards base; a subbasal brown point on median nervure; a brown mark at lower angle of cell; postmedial line very indistinct, obliquely downcurved from costa to vein 6, then oblique and slightly excurved at vein 1; a conical dark brown patch on costa towards apex with some white on its inner side beyond the postmedial line; a series of black points just before termen; cilia red-brown. Hind wing white suffused with brown; a terminal series of black points from apex to submedian fold; the underside white tinged with brown, traces of a curved postmedial line.

Hab. Sikhim, 1800′ (*Dudgeon*), 1 ♀; Burma, Momeit (*Doherty*), type† ♂ in Coll. Rothschild. *Exp.* 32 millim.

5908. Eustrotia albisigna. (Plate CLXVI. fig. 31.)

Eustrotia albisigna. Hmpsn. P. Z. S. 1910, p. 410.

♀. Head, thorax, and abdomen brown mixed with grey, the last with the anal tuft and ventral surface whitish. Fore wing grey-brown slightly irrorated with fuscous brown; antemedial line slight, brown, angled outwards below costa and in cell, then sinuous; claviform and orbicular absent; reniform with brown

centre and white annulus, obsolescent on outer side above, oblique elliptical, some dark suffusion before it; postmedial line dark, bent outwards at vein 7, incurved at discal fold, oblique from vein 4 to submedian fold and bent outwards above inner margin, some white points beyond it on costa; subterminal line double, dark filled in with olive, minutely waved, excurved below vein 7 and at middle, an oblique dark shade before it from below costa to vein 4; a terminal series of black and white points. Hind wing dark grey-brown; a fine black terminal line; the underside whitish irrorated with brown, a slight discoidal point, curved postmedial line, and diffused subterminal shade.

Ab. 1. Fore wing with the reniform more triangular and filled in with white.

Hab. N.E. Rhodesia, Kolungwisi Valley (*Neave*), 1 ♀ type, Chambezi Valley. *Exp.* 24 millim.

5909. **Eustrotia amydrozona**, n. sp. (Plate CLXVI. fig. 32.)

♂. Head and thorax yellowish white mixed with golden brown; palpi blackish at sides; the tarsi black ringed with white; abdomen yellowish white dorsally suffused with brown. Fore wing golden brown irrorated with black; the basal half of submedian interspace whitish; subbasal line represented by a whitish bar from costa; antemedial line represented by faint dark points very obscurely defined on inner side by whitish; an elliptical whitish discoidal spot, its centre incompletely defined by brown and with whitish suffusion above it on costa; postmedial line indistinct, dark, bent outwards below costa, excurved to vein 4, then incurved, the inner area beyond it whitish; subterminal line very indistinct, pale, defined on inner side by indistinct dentate dark marks below veins 7, 6, 5, excurved at middle; a fine blackish terminal line. Hind wing golden brown, the cilia with white mixed; the underside brown irrorated and mottled with white, an indistinct waved postmedial line.

Hab. Br. E. Africa, Tanga (*Hollis*), 1 ♂ type. *Exp.* 20 millim.

*5910. **Eustrotia macrosema**. (Plate CLXVII. fig. 1.)

Xanthoptera macrosema, Lower, Tr. R. Soc. S. Austr. xxvii. p. 48 (1903).

♀. Head reddish brown and black; thorax and abdomen grey and fuscous; tarsi with pale rings. Fore wing with fuscous brown and black mixed; an oblique black subbasal line angled outwards in submedian fold and above inner margin, at the former expanding into a black patch; a double minutely waved antemedial line obliquely excurved below costa; medial area suffused with fuscous; a large oblique-elliptical white discoidal spot, its centre incompletely defined by brown; a double postmedial line produced to black and white points on the veins, bent outwards below costa.

excurved to vein 4, then incurved; subterminal line defined by black on inner side, angled outwards at vein 7, excurved at middle and angled inwards in discal and submedian folds, a pale rufous spot beyond it at tornus; a terminal series of small black lunules. Hind wing greyish fuscous, the cilia whitish at tips; the underside brownish white irrorated with brown, a small discoidal spot and indistinct curved postmedial line.

Hab. Queensland, Brisbane, type † ♀ in Coll. Lower. *Exp.* 25 millim.

5911. Eustrotia amydra. (Plate CLXVII. fig. 2.)

Turache amydra, Swinh. A. M. N. H. (7) xix. p. 53 (1897).

♀. Head and thorax white mixed with fuscous; fore tibiæ and the tarsi blackish ringed with white; abdomen white dorsally suffused with fuscous leaving white segmental lines. Fore wing grey mixed with white and irrorated with black, the antemedial area in submedian interspace and the postmedial area with a faint olive-yellow tinge; subbasal line only defined by a darker bar beyond it; antemedial line indistinct, sinuous, angled outwards above inner margin; claviform an indistinct blackish mark; orbicular white defined by black and with black spot in centre, small, round; reniform white defined by black, its centre tinged with olive-yellow and with black points in upper and lower parts, somewhat constricted at middle; a faint sinuous blackish line from lower angle of cell to inner margin; postmedial line blackish slightly defined on outer side by white, bent outwards below costa, slightly angled inwards at discal fold, incurved and minutely dentate below vein 4, some whitish points beyond it on costa; subterminal line represented by slight whitish marks defined on inner side by diffused blackish, excurved below vein 7 and at middle; a terminal series of blackish points. Hind wing whitish tinged with purplish brown, the cilia tipped with white; the underside white irrorated with brown, a brown discoidal spot, curved maculate postmedial line, traces of a subterminal line, and a terminal series of lunules.

Hab. Angola, Bihé, 1 ♀ type. *Exp.* 24 millim.

5912. Eustrotia flaviguttata. (Plate CLXVII. fig. 3.)

Eustrotia flaviguttata, Grote, Can. Ent. xiv. p. 187 (1882); Smith, Cat. Noct. N. Am. p. 310.

Head and thorax yellowish white mixed with grey-brown; abdomen white tinged with ochreous brown. Fore wing whitish suffused with pale purplish brown and irrorated with a few black scales; antemedial line very indistinct, dark, oblique from costa to median nervure where it is angled, then inwardly oblique, two black discoidal points defined by grey; a faint rufous medial shade

approximated to the postmedial line below the cell and with yellowish spot on it at median nervure and less distinct spot at vein 1; postmedial line double, the inner line blackish, the outer indistinct, bent outwards below costa, then oblique, some pale points beyond it on costa; subterminal line very indistinct, pale, slightly defined on inner side by brown, excurved below vein 7 and at middle; the terminal area somewhat browner with a series of faint fuscous points before termen. Hind wing brown with a greyish tinge; the underside whitish tinged and irrorated with brown, faint curved postmedial and subterminal lines.

Hab. U.S.A., 1 ♂, Florida, Texas. *Exp.* 16 millim.

5913. Eustrotia secta. (Plate CLXVII. fig. 4.)

Eustrotia secta, Grote, Can. Ent. xi. p. 199 (1879); Smith, Cat. Noct. N. Am. p. 310.

Head and thorax reddish brown mixed with purplish grey; tarsi ringed with whitish; abdomen whitish tinged with brown. Fore wing violaceous white suffused and irrorated with purplish brown; a slight subbasal dark mark on costa; antemedial line slight, dark, oblique from costa to submedian fold, then incurved and with some whitish suffusion before it below the cell; two black discoidal points defined by grey; postmedial line dark slightly defined on outer side by whitish, bent outwards from below costa to vein 6, then minutely waved, incurved below vein 4 and with more or less distinct blackish patch before it, some white points beyond it on costa; subterminal line whitish defined on inner side by brown forming a patch at costa, angled outwards at vein 7, excurved at middle and bent outwards to tornus; a punctiform brown terminal line with some whitish before it; cilia red-brown. Hind wing greyish uniformly suffused with brown; cilia brownish at base and with whitish tips; the underside whitish irrorated with brown, a black discoidal striga, diffused curved postmedial line, diffused subterminal line, and terminal series of black striæ.

In two specimens the fore wing has the areole absent, in one vein 10 arises free, then strongly anastomoses with 11, in the other it is strongly stalked with 11.

Hab. U.S.A., Massachusetts (*Thaxter*), 3 ♂ type, New York (*Speyer*), 1 ♀. *Exp.* 18 millim.

5914. Eustrotia bryophilina, n. sp. (Plate CLXVII. fig. 5.)

♂. Head and thorax grey tinged with rufous and pencilled with fuscous; fore tibiæ and tarsi banded with fuscous; abdomen ochreous white dorsally irrorated with brown. Fore wing greyish tinged in parts with rufous and thickly pencilled with fuscous; subbasal line rather diffused, blackish, from costa to submedian fold; antemedial line double, rather diffused, blackish, waved, the

two lines widely separated; orbicular a small round black spot with faint pale annulus; reniform with some black and rufous in centre and faint pale annulus; a rather oblique black medial shade; postmedial line rather indistinctly double, strongly bent outwards below costa, incurved at discal fold and strongly below vein 4, some pale points beyond it on costa; subterminal line rufous defined on inner side by blackish suffusion, angled outwards at vein 7, incurved at discal fold and excurved at middle; a terminal series of black points; cilia rufous and black. Hind wing whitish tinged with red-brown; the underside whitish slightly irrorated with brown, a terminal series of black points.

Hab. Transvaal, Pretoria (*Janse*), 1 ♂ type. *Exp.* 24 millim.

*5915. Eustrotia astydamia. (Plate CLXVII. fig. 6.)

Tarache astydamia, Schaus, Trans. Am. Ent. Soc. xxi. p. 240 (1894).

♀. Head and thorax chocolate-brown irrorated with white, the prothoracic crest except at tips and vertex of thorax blackish; palpi and frons blackish brown; tarsi blackish ringed with white. Fore wing chocolate-brown irrorated and suffused with grey; subbasal line grey, from costa to submedian fold; antemedial line brown defined on each side by grey, slightly curved; orbicular and reniform with grey annuli, the former round, the latter angled slightly inwards on median nervure; postmedial line brown defined on each side by grey, bent outwards below costa, oblique to vein 5, then incurved; the postmedial area with black-brown wedge-shaped patch from costa to subterminal line at vein 4, with some pale points on costa; subterminal line grey, incurved at discal fold, excurved at middle, and bent outwards to tornus; a terminal series of small black lunules defined by a fine waved grey line. Hind wing cupreous brown, the terminal area rather darker; a fine dark terminal line; cilia with a fine pale line at base; the underside whitish thickly irrorated with brown, a dark discoidal spot and curved postmedial line.

Hab. Brazil, Castro Paraña (*D. Jones*), type† ♀ in U.S. Nat. Mus. *Exp.* 26 millim.

5916. Eustrotia asteria.

Thalpochares asteria, Druce, Biol. Centr.-Am., Het. ii. p. 497, pl. 95. f. 25 (1898).

♀. Head and thorax red-brown; pectus whitish; tarsi brown ringed with white; abdomen brown, pale at base. Fore wing red-brown, the basal area, the medial area except towards costa, and the apical area irrorated with violaceous white forming small round spots in parts; a round subbasal white spot in cell; two obliquely placed white spots before the excurved antemedial series of white points; a round white spot in middle of cell and two

discoidal points defined by brown; postmedial line formed of minute blackish lunules with white points on their outer side, slightly bent outwards below costa; excurved to vein 4, then incurved; two obliquely placed small blackish spots below costa towards apex with white spots on their outer side; subterminal and terminal series of white points. Hind wing pale purplish brown; a brown terminal line; cilia whitish tinged with brown and with brownish spots at base from apex to vein 2; the underside greyish, the costal area irrorated with brown, a discoidal bar, rather diffused postmedial and subterminal lines, and terminal series of small lunules.

Hab. Mexico, Tabasco. Teapa (*H. H. Smith*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 24 millim.

5917. Eustrotia micropis. (Plate CLXVII. fig. 7.)

Eustrotia micropis, Hmpsn. P. Z. S. 1910, p. 410.

♂. Head, thorax, and abdomen dark brown mixed with grey and slightly tinged with rufous; tarsi black ringed with white. Fore wing dark glossy brown, the inner half rufous to end of cell; very faint traces of a sinuous antemedial line; orbicular and reniform minute, white ringed with black, the former round; an indistinct sinuous brown line from lower angle of cell to inner margin; terminal area slightly tinged with grey, the veins and interspaces streaked with black; cilia with a rather punctiform whitish line at base. Hind wing greyish wholly suffused with glossy brown; the underside whitish irrorated with brown.

Hab. Congo, Katanga Distr. (*Neave*), 1 ♂ type. *Exp.* 22 millim.

5918. Eustrotia melanopis, n. sp. (Plate CLXVII. fig. 8.)

Head and thorax red-brown mixed with whitish and some dark brown; a dark streak on prothorax and bar on mesothorax; tarsi blackish ringed with white; abdomen ochreous white irrorated with brown. Fore wing red-brown mixed with greyish, the medial area with a purplish tinge; antemedial line whitish, oblique from costa to submedian fold, then angled inwards on vein 1 and outwards above inner margin; orbicular a small black spot, the reniform only defined by a slight whitish bar on its inner edge; postmedial line white slightly defined on inner side by black, bent outwards below costa, excurved to vein 4, then oblique and slightly sinuous; some white points beyond it on costa and a black streak below the costa; subterminal line very faint, whitish, angled outwards at vein 7 and with a black patch beyond it at apex; a terminal series of slight dark points; cilia greyish and brown with fine pale lines at base and near tips. Hind wing cupreous brown, the cilia whitish with a brown line through them; the

underside whitish thickly irrorated with brown, a slight discoidal point, curved postmedial line, and terminal series of points.

Hab. Br. E. Africa, Kikuyu (*Crawshay*), 1 ♀ type, Kiliman'jaro (*Sjöstedt*), 1 ♂. *Exp.* 22 millim.

5919. **Eustrotia chionozona**, n. sp. (Plate CLXVII. fig. 9.)

♀. Head, thorax, and abdomen whitish tinged with rufous and slightly irrorated with fuscous; palpi with the 2nd joint black behind. Fore wing yellowish suffused and irrorated with fuscous brown except on termen from below apex to vein 3, the inner area much less suffused; a white spot at base of costal area; an antemedial white band, bent outwards and waved from subcostal nervure to submedian fold, slightly defined on outer side by black; a small white discoidal spot; an ill-defined white postmedial band almost obsolete between veins 6 and 3; cilia blackish with a yellowish line through them. Hind wing fuscous brown with a cupreous gloss, the cilia yellowish with a dark line near base and dark tips; the underside yellowish irrorated with fuscous, a small discoidal spot and diffused postmedial and subterminal lines.

Hab. Madras, Belgaum (*Watson*), 1 ♀ type. *Exp.* 26 millim.

*5920. **Eustrotia euchrysa.** (Plate CLXVII. fig. 10.)

Xanthoptera euchrysa, Lower, Tr. R. Soc. S. Austr. xxvii. p. 48 (1903).

♀. Head ochreous; thorax bright rufous with slight dark irroration; pectus, legs, and abdomen ochreous, the tarsi with fuscous bands. Fore wing bright rufous variegated with yellow; a waved yellow subbasal line from costa to submedian fold where it is bent inwards to base; a somewhat oblique waved yellow antemedial line with a small yellow annulus beyond it in cell; a B-shaped discoidal spot; a minutely waved yellow postmedial line defined by dark brown on inner side, strongly bent outwards below costa, slightly angled inwards at discal fold, incurved below vein 4, with some yellow points beyond it on costa; a dentate yellow subterminal line, oblique from costa near apex, angled outwards to near termen at middle, then incurved, the area beyond it paler; a terminal series of blackish points. Hind wing pale rufous; the underside yellowish suffused with rufous, a discoidal point and curved minutely waved postmedial line.

Hab. Queensland, Cooktown, type† ♀ in Coll. Lower. *Exp.* 22 millim.

5921. **Eustrotia bilineata.** (Plate CLXVII. fig. 11.)

Hyela bilineata, Hmpsn. J. Bomb. Nat.Hist. Soc. xi. p. 446 (1897).

♀. Head, thorax, and abdomen ochreous white tinged with rufous. Fore wing ochreous almost entirely suffused with rufous; a white mark at base; antemedial line double, black filled in with

white, waved, angled outwards in cell; reniform white defined by black, elliptical, with black spot in its lower part; postmedial line double, black filled in with white, oblique from costa to vein 6, excurved and minutely dentate at middle, then oblique to submedian fold and bent outwards above inner margin; cilia with a slight pale line through them and some blackish at apex. Hind wing ochreous tinged with brown; cilia pale; the underside ochreous white irrorated with brown, a small discoidal spot and curved postmedial line.

Hab. Assam, Khásis, 1 ♀ type. *Exp.* 22 millim.

5922. Eustrotia fervens. (Plate CLXVII. fig. 12.)

Hyela fervens, Hmpsn. J. Bomb. Nat. Hist. Soc. xvii. p. 474 (1906).

Head and thorax ochreous tinged with rufous; antennæ slightly ringed with black; palpi and fore legs tinged with fuscous; abdomen reddish ochreous tinged with fuscous. Fore wing ochreous suffused with rufous; a white spot in base of cell; antemedial line white defined on inner side by a few black scales, excurved and minutely waved between subcostal nervure and submedian fold; reniform a small white lunule with a few black scales on it; postmedial line white defined on inner side by a few black scales, touching upper part of reniform, then excurved to well beyond it, bent inwards and touching lower part of reniform, then sinuous; subterminal line incomplete, white, slightly angled outwards at veins 7, 6, excurved at middle and slightly angled inwards at disc and submedian folds. Hind wing ochreous white tinged with brown; cilia ochreous white with a brown line through them; the underside ochreous white irrorated with brown, a small discoidal spot and traces of a diffused curved postmedial line.

Hab. Bombay, Kanara, Karwar (*Bell*), 1 ♂ type; Madras, Belgaum (*Watson*), 1 ♂, 2 ♀. *Exp.* 18 millim.

5923. Eustrotia fuscicilia.

Acontia fuscicilia, Hmpsn. Ill. Het. B. M. viii. p. 75, pl. 145. f. 17 (1891); id. Moths Ind. ii. p. 317.

Head and thorax ochreous tinged with rufous; palpi with some black scales; antennæ ringed with brown; fore legs blackish, the tarsi banded with black; abdomen ochreous irrorated with brown. Fore wing ochreous tinged with rufous and irrorated with a few black scales; traces of sinuous antemedial and postmedial lines with black points on inner margin; a terminal series of black points; cilia greyish mixed with black. Hind wing whitish suffused with fuscous brown; the underside ochreous irrorated with brown, a brown discoidal spot and traces of a curved postmedial line.

Hab. Punjab, Jubbulpur, 1 ♀; Madras, Belgaum (*Watson*), 3 ♂, 2 ♀, Nilgiris (*Hampson*), 5 ♀ type. *Exp.* 18–20 millim.

5924. Eustrotia flavifrons.

Gesonia flavifrons, Moore, Lep. Ceyl. iii. p. 552, pl. 214. f. 8 (1887).

♂. Head yellow; palpi blackish to near extremity of 2nd joint; antennæ brown; thorax fuscous brown; pectus, legs, and abdomen ochreous tinged with brown. Fore wing uniform ochreous suffused with fuscous brown. Hind wing ochreous white suffused with brown, the cilia paler; the underside ochreous with a brown discoidal spot.

Ab. 1. Tegulæ with yellow spot at base, the patagia and thorax ochreous; fore wing ochreous without fuscous tinge except on terminal area; hind wing on underside with some brown at base of costa and without discoidal spot.—Sikhim, Bhután.

Palpi with the 3rd joint rather long.

Hab. Sikhim (*Pilcher*), 1 ♂; Bhután (*Dudgeon*), 1 ♂; Ceylon, 1 ♂ type. *Exp.* 22 millim.

5925. Eustrotia marginata.

Earias marginata, Wlk. xxxv. 1775 (1866); Hmpsn. Ill. Het. B. M. viii p. 13, pl. 143. f. 21; id. Moths Ind. ii. p. 316.

Head and thorax ochreous yellow; palpi, lower part of frons, antennæ, pectus in front, and fore legs deep red-brown, the mid and hind legs tinged with red-brown; abdomen ochreous yellow irrorated with brown. Fore wing bright ochreous yellow, the terminal area purplish fuscous bounded on inner side by a minutely waved black line incurved from apex to inner margin just before tornus. Hind wing whitish suffused and irrorated with red-brown rather darker in female.

In the type from Java the fore wing has a small antemedial tuft of raised black scales in submedian fold and two on discocellulars.

Hab. Punjab, Kulu, 1 ♂, Dharmsála (*Hocking*), 5 ♂, 2 ♀; Madras, Belgaum (*Watson*), 1 ♂, 1 ♀, Nilgiris (*Hampson*), 1 ♀; Burma, Thayetmyo (*Watson*), 1 ♂; Java (*Horsfield*), 1 ♀ type; Celebes, Makassar (*Wallace*), 1 ♀. *Exp.* 16–20 millim.

Genus **STENORACHE**, nov.

Type, *S. nubilosa*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about middle of frons and smoothly scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male laminate and almost simple; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled; abdomen without crests. Fore wing long and narrow, the apex rounded; the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 coincident; 5 almost fully developed from above angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

5926. Stenorache nubilosa.

Tarache nubilosa, Hmpsn. Moths Ind. ii. p. 315 (1894).

Head rufous; thorax white, the tegulæ with grey-brown medial line, the patagia with grey-brown spots, the vertex of thorax with grey-brown bars; legs blackish, the tarsi ringed with white; abdomen whitish suffused with grey-brown. Fore wing white, the costal area suffused with grey-brown to beyond postmedial line; subbasal line represented by a curved black striga from costa; antemedial line almost medial, blackish, angled outwards on median nervure and vein 1; medial area suffused with grey-brown except beyond and just below the cell; claviform a black point; orbicular sutous defined by black, small, round; the reniform a small black

Fig. 162.—*Stenorache nubilosa*, ♂. ¾.

annule; postmedial line grey-brown defined on outer side by white, slightly bent outwards below costa and incurved at discal fold, incurved and sinuous below vein 4, a wedge-shaped grey-brown patch beyond it from costa and sinuous band from vein 4 to inner margin; a faint brown subterminal line excurved to termen below middle; a terminal series of black striæ; cilia grey with slight whitish lines at base and near tips. Hind wing grey; the underside whitish, the costal area tinged with brown, traces of a diffused sinuous subterminal line.

Hab. Punjab, Simla (*Harford*), 1 ♀ type, Kangra Valley (*Dudgeon*), 1 ♂. *Exp.* 20 millim.

Genus **PSEUDOMICRODES**, n. n.

Type.

Pseudomicra, Rebel, Denk. Math.-nat. Akad. Wissen. lxxi. p. 52 (1901), nec Butl. Lep. 1892..... *decolora*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to about middle of frons and moderately scaled, the 3rd short; frons smooth; eyes large, round; ocelli present; antennæ of male ciliated; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled; abdomen without crests. Fore wing rather long and narrow, the apex rounded, the termen obliquely curved and not crenulate; vein 3 from before angle of cell; 4, 5 from angle; 6, 7 from upper angle; 9 from 10 anastomosing with 8 with a minute areole at their base; 11 from cell. Hind wing with veins 3, 4 strongly stalked; 5 nearly fully developed from just below middle of discellulars; 6, 7 from upper angle; 8 anastomosing with the cell to beyond middle.

Sect. I. Hind wing with veins 3, 4 strongly stalked.

A. Fore wing with the ante- and postmedial lines present.
a Fore wing with the inner medial area ochreous white .. *fuscipars.*
b. Fore wing with the inner half of medial area tinged with rufous and sometimes suffused with fuscous.
a^1. Fore wing with the postmedial line double filled in with white.
a^2. Fore wing with oblique white shade from postmedial part of costa to reniform ..... *mediorufa.*
b^2. Fore wing without oblique white shade from postmedial part of costa to reniform.
a^3. Fore wing with black shade on outer part of medial area from costa to median nervure, or the whole medial area suffused with black ... *atrifusa.*
b^3. Fore wing without black shade on medial area . *rufigrisea.*
b^1. Fore wing with the postmedial line single ..... *decolora.*
B. Fore wing with the ante- and postmedial lines represented by dark points ..... *polystricta.*
C. Fore wing with the ante- and postmedial lines absent ... *ochrocraspis.*

5927. **Pseudomicrodes fuscipars**, n. sp. (Plate CLXVII. fig. 13.

Head and thorax grey-white mixed with fuscous brown; abdomen white tinged with ochreous brown; tibiæ with fuscous bands near extremities, the tarsi fuscous with pale rings. Fore wing ochreous white, the costal area to postmedial line and the terminal area suffused with fuscous; antemedial line black defined on inner side by white, oblique from below costa to submedian fold, then obsolescent, angled inwards on vein 1 and with black point at inner margin; orbicular a small oblique white spot incompletely defined by black; reniform white slightly defined by blackish and with brown striga in centre, elliptical; postmedial line double filled in with whitish, oblique from costa to vein 6 then inwardly oblique, interrupted in submedian interspace and with black point at inner margin; subterminal line white slightly defined on inner side by brown, somewhat excurved below vein 7 and at middle and with oblique black shade beyond it from apex; a terminal series of black points; cilia white tinged with ochreous brown. Hind wing white tinged with reddish brown; a fine dark terminal line; the underside white, the costal area and terminal area to vein 2 tinged and irrorated with brown, a small black discoidal spot.

Hab. Transvaal, Warmbad (*Janse*), 1 ♂, 1 ♀ type. *Exp.* 18 millim.

5928. **Pseudomicrodes mediorufa**, n. sp.

Metachrostis negrita, Hmpsn. Ann. S. Afr. Mus. ii. p. 415 (part.).

Head and thorax white mixed with brown and black; antennæ blackish ringed with white towards base; abdomen grey suffused with brown. Fore wing white irrorated with black and suffused in parts with brown, the medial area tinged with rufous from co

to inner margin; a white mark followed by some black at base of costa; antemedial line black with a diffused white patch beyond it from costa to median nervure where it is strongly bent outwards, then double filled in with white, minutely waved and angled inwards on vein 1; orbicular white defined by black, minute, round; reniform white, defined by black on inner side and below, diffused on outer; medial line oblique from costa to inner edge of reniform, then sinuous; postmedial line double, black filled in with white, the outer line indistinct, oblique from costa to vein 6, rather inwardly oblique to vein 4, then bent inwards to near medial line and sinuous to inner margin, an oblique whitish shade beyond it

Fig. 163.—*Pseudomicrodes medioufa*, ♂.

from costa near apex and some white points on costa; subterminal line white defined on each side by rather diffused brown, minutely waved, bent outwards to inner margin, an oblique blackish streak beyond it from apex; a terminal series of black points; cilia fuscous brown mixed with grey. Hind wing whitish suffused with brown; a dark terminal line; the underside white faintly tinged with rufous, the costal area irrorated with brown, a black discoidal spot, traces of a curved postmedial line, and minutely waved subterminal line.

Hab. Cape Colony, Annshaw (*Miss F. Barrett*), 2 ♂, 2 ♀ type. *Exp.* 16–18 millim.

5929. **Pseudomicrodes atrifusa**, n. sp. (Plate CLXVII. fig. 14.)

Head, thorax, and abdomen grey tinged with brown, the tegulæ with blackish marks at tips, the prothorax with blackish band; tibiæ with blackish bands near extremities, the tarsi fuscous with pale rings. Fore wing grey tinged with rufous and suffused and irrorated with fuscous, the medial area more rufous and more or less strongly suffused with black; antemedial line double, black filled in with white, minutely waved; orbicular a faint minute round rufous spot defined by brown; a curved black discoidal bar; medial line black, excurved in and below cell and incurved at median nervure; postmedial line double filled in with white, oblique from costa to vein 6, incurved at vein 4 to lower angle of cell, then the inner line black and prominent; subterminal line white defined on each side by fuscous suffusion, very slightly excurved below vein 7 and at middle; a terminal series of black points.

Hind wing whitish suffused with fuscous brown; a dark terminal line; the underside white tinged with brown, a blackish discoidal spot and indistinct diffused medial, postmedial, and subterminal shades.

Hab. Ceylon, Nawalapittya (*Mackwood*, *Pole*), 1 ♂, 3 ♀ type, Puttalam (*Pole*), 1 ♀. *Exp.* 16 millim.

5930. **Pseudomicrodes rufigrisea**, n. sp. (Plate CLXVII. fig. 15.)

Metachrostis negrita, Hmpsn. Ann. S. Afr. Mus. ii. p. 415 (part.).

Head, thorax, and abdomen pale ochreous tinged with rufous; tarsi fuscous with pale rings. Fore wing greyish ochreous suffused with rufous and slightly irrorated with black; a subbasal black point on costa; antemedial line whitish faintly defined on each side by brown and with black point at costa, waved, angled outwards below median nervure; orbicular with faint whitish annulus and oblique black striga on lower part of outer edge; reniform whitish faintly defined by brown and with oblique black striga on lower part of inner edge; traces of a medial line oblique from costa to reniform, then inwardly oblique; postmedial line very indistinctly double filled in with yellowish white, oblique from costa to vein 6, then inwardly oblique and very minutely waved, some brownish points beyond it on costa; subterminal line yellowish white defined on each side by red-brown, excurved below vein 7 and at middle and with oblique blackish shade beyond it from apex; a terminal series of small black spots. Hind wing whitish tinged with red-brown; a fine dark terminal line; the underside whitish, the costal area tinged with brown, a dark discoidal point and traces of a sinuous subterminal line with brownish spots below costa and at discal and submedian folds, some black points on termen towards apex.

Hab. Br. E. Africa, Teita (*Jackson*), 1 ♂ type, Ukambani (*Jackson*), 1 ♀. *Exp.* 18 millim.

*5931. **Pseudomicrodes decolora.** (Plate CLXVII. fig. 16.)

Pseudomicra decolor, Rebel, Denk. Math.-nat. Akad. Wissen. lxxi. p. 52 (1907).

♂. Head and thorax grey mixed with some brown; palpi with some fuscous at side of 2nd joint; abdomen grey tinged with brown. Fore wing grey irrorated with brown; antemedial line slight, dark, defined on inner side by whitish, oblique from costa to median nervure, slightly angled inwards in submedian fold, then excurved; a slight dark discoidal bar; traces of an oblique somewhat dentate dark postmedial line from vein 6 to inner margin; a terminal series of slight dark points. Hind wing grey suffused with reddish brown, the cilia whitish.

Hab. Sokotra, Ab-del-Kari, type† ♂ in Mus. Vienna. *Exp.* 12 millim.

5932. **Pseudomicrodes polysticta**, n. sp. (Plate CLXVII. fig. 17.)

♂. Head, thorax, and abdomen ochreous slightly tinged with rufous. Fore wing ochreous slightly tinged with rufous; a subbasal blackish point below costa; antemedial line hardly traceable, oblique from costa to submedian fold in which there is a black point, then inwardly oblique and with black point at inner margin; a very oblique brownish striga from middle of costa; a slight brown discoidal point; postmedial line represented by brown points strongly bent outwards below costa, then by brown points on veins 5 and 2 and a black point nearer base in submedian fold; a terminal series of black-brown points. Hind wing white slightly tinged with ochreous.

Hab. Gold Coast, Accra (*Sir G. Carter*), 1 ♂ type. *Exp.* 18 millim.

5933. **Pseudomicrodes ochrocraspis**, n. sp. (Plate CLXVII. fig. 18.)

♀. Head, thorax, and abdomen ochreous white, the thorax slightly tinged with rufous, the abdomen with brown; fore and mid legs and the hind tarsi suffused with blackish brown. Fore wing pale ochreous suffused with fuscous brown except the inner margin, termen, and cilia. Hind wing pale ochreous suffused with brown except the cilia.

Hab. Transvaal, Kranspruit, 1 ♀ type. *Exp.* 14 millim.

Sect. II. Hind wing with veins 3, 4 from the cell.

5934. **Pseudomicrodes ecrufa.**

Eublemma ecrufa, Hmpsn. Ann. S. Afr. Mus. iii. p. 438 (1905).

♀. Head and thorax whitish mixed with grey and slightly tinged with ochreous; abdomen ochreous white tinged with brown. Fore wing whitish thickly irrorated with brown; an indistinct oblique dark medial line from cell to vein 1 defined on inner side

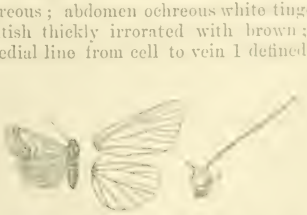

Fig. 164.—*Pseudomicrodes ecrufa*, ♀. ½.

by white and with a black fascia or two spots between it and postmedial line in submedian fold; a slight dark postmedial line, indistinct and excurved from costa to lower angle of cell, then incurved and defined on outer side by white; subterminal line white,

defined on inner side by a red-brown band and on outer side by rufous, slightly excurved below vein 7, excurved and minutely waved at middle and bent outwards to tornus; a lunulate terminal black line defined on inner side by whitish; cilia with a brown line near tips with some whitish before it. Hind wing whitish tinged with brown, the terminal area suffused with reddish brown from apex to vein 2; the underside white irrorated with brown, a blackish discoidal spot.

Hab. Cape Colony, Deelfontein (*Sloggett*), 2 ♀ type. *Exp.* 16–18 millim.

Genus EULOCASTRA.

	Type.
Eulocastra, Butl. Trans. Ent. Soc. 1886, p. 419	*fasciata.*
Thalerastria, Staud. Iris, x. p. 294 (1897)	*diaphora.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and smoothly scaled, the 3rd rather long; frons smooth; eyes large, round; antennæ of male somewhat laminate and almost simple; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 typically from angle of cell; 5 almost fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. (*Thalerastria*). Hind wing with veins 3, 4 stalked.

A. Fore wing ochreous white, the base, a triangular medial mark on costa, and the termen blackish ..... *diaphora.*
B. Fore wing fuscous with pale antemedial band.
  a. Fore wing with the band ochreous white ..... *ochrizona.*
  b. Fore wing with the band pure white.
    a^1. Fore wing with white postmedial spot on costa ..... *melæna.*
    b^1. Fore wing without white postmedial spot on costa ..... *leucobasis.*

5935. Eulocastra diaphora.

Erastria diaphora, Staud. Hor. Ent. Soc. Ross. xiv. p. 415 (1878); id. Rom. Mém. ii. p. 74, pl. 3. f. 11; id. Cat. Lep. pal. p. 230.
Thalpochares triangularis, Warr. P. Z. S. 1888, p. 309, Hmpsn. Moths Ind. ii. p. 317.
Metachrostis atribasalis, Hmpsn. P. Z. S. 1896, p. 261, pl. x. f. 11.
Thalerastria laticincta, Staud. Iris, x. p. 294 (1897).

Head and thorax black-brown mixed with some grey; palpi whitish mixed with fuscous; pectus and legs white, the fore tibiæ and the tarsi banded with black; abdomen ochreous white with faint dorsal grey bands. Fore wing yellowish white tinged with rufous; the basal area black-brown slightly glossed with grey; an oblique triangular black-brown patch from middle of costa to lower angle of cell; traces of a pale postmedial line; a narrow terminal black-brown band expanding somewhat at apex, discal

and submedian folds; cilia black-brown glossed with grey. Hind wing white tinged with ochreous, in female with brown.

Ab. 1. *triangularis*. Fore wing more strongly tinged with rufous; hind wing suffused with fuscous.

Ab. 2. *luticinct a*. Fore wing with the terminal black-brown band wider; hind wing suffused with fuscous.

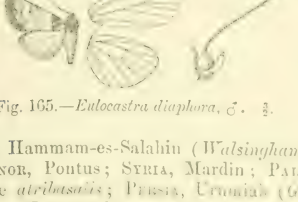

Fig. 165.—*Eulocastra diaphora*, ♂. ⅔.

Hab. Algeria, Hammam-es-Salahin (*Walsingham*), 4 ♂; Armenia; Asia Minor, Pontus; Syria, Mardin; Palestine; Aden (*Nurse*), 1 ♂ type *atribasalis*; Persia, Urumiah (*Günther*), 1 ♂; Punjab, Jamrud (*Watson*), 1 ♂, 1 ♀, Campbellpur (*Verbury*), 1 ♀ type *triangularis*. *Exp.* 16 millim.

The type of *atribasalis* is an aberrant specimen with the areole absent on one side, reduced to a minute loop at base of 7, 8, 9 on the other.

5936. **Eulocastra ochrizona**. n. sp. (Plate CLXVII. fig. 19.)

♀. Head, thorax, and abdomen fuscous brown mixed with white; tarsi fuscous ringed with white. Fore wing fuscous brown suffused with purplish grey; a broad yellowish white antemedial band with a dark point on it at costa, its inner edge angled inwards below the cell, its outer edge incurved in cell and submedian fold; traces of an oblique red-brown line from costa beyond middle to tornus, with a yellowish white patch beyond it on costa and slightly defined by yellowish white at discocellulars where it is somewhat incurved; subterminal line formed of yellowish white scales, angled outwards at vein 7 and obsolete below submedian fold. Hind wing grey suffused with purplish brown; the underside whitish tinged with brown.

Hab. Arabia, Muscat (*Jayakar*), 1 ♀ type. *Exp.* 18 millim.

5937. **Eulocastra melæna**.

Tarache melæna, Hmpsn. Bull. Liverp. Museums, ii. p. 35, 1899; id. Nat. Hist. Sokotra, p. 324, pl. xx. ff. 9, 10.

♀. Head and thorax glossy black-brown, the former with a greyish tinge; pectus and legs with some whitish; abdomen dark brown, the ventral surface paler. Fore wing glossy black-brown; a nearly erect white antemedial band expanding somewhat towards

costa; an oblique triangular postmedial spot on costa, the black postmedial line arising from it, obliquely excurved to vein 4, then incurved; a small subterminal white spot in submedian fold and a series of white points just before termen; cilia with some grey mixed. Hind wing black-brown with a greyish tinge, the cilia whitish at tips; the underside grey suffused with fuscous, a faint dark discoidal striga.

Ab. 1. Fore wing with the antemedial band narrower and not reaching vein 1, the subterminal spot and points before termen absent.

Ab. 2. Fore wing with the antemedial band replaced by a faint double minutely waved black line.

Hab. Sokotra, Hadibu Plain (*O. Grant*), 5 ♀ type. *Exp.* 20 millim.

5938. **Eulocastra leucobasis**, n. sp. (Plate CLXVII. fig. 20.)

Head and thorax black-brown mixed with rufous and some grey; pectus whitish; tarsi ringed with white; abdomen grey-brown with a rufous tinge, the ventral surface whitish. Fore wing black-brown mixed with rufous and some grey; subbasal line represented by black points on costa and in cell; antemedial area white bounded by the waved black antemedial line, which is angled inwards in cell; claviform and orbicular small round black spots with slight rufous annuli; reniform whitish with slight blackish marks in upper and lower parts, somewhat constricted at middle; an indistinct oblique waved blackish line from lower angle of cell to inner margin; postmedial line black defined on outer side by white, bent outwards below costa, excurved to vein 4, then incurved and waved, some white points beyond it on costa; subterminal line whitish defined on inner side by some black, excurved below vein 7 and at middle and angled inwards at discal and submedian folds; a terminal series of black points. Hind wing whitish suffused with cupreous brown; the underside white irrorated with brown, a slight discoidal lunule and faint postmedial line excurved beyond the cell.

Hab. Madras, Belgaum (*Watson*), 5 ♂, 8 ♀ type. *Exp.* 18–20 millim.

Sect. II. (*Eulocastra*). Hind wing with veins 3, 4 from cell.

A. Fore wing not uniform white tinged with red-brown.
  a. Fore wing not red-brown with a silvery leaden gloss.
    a^1. Fore wing not pale purplish brown.
      a^2. Fore wing white with the base and termen black.
        a^3. Fore wing without triangular black patch on middle of costa ..... *curvipha.*
        b^3. Fore wing with triangular black patch on middle of costa ..... *argentifrons.*
      b^2. Fore wing with black medial band.
        a^3. Fore wing with the base white.

a^4. Fore wing with the terminal area not strongly suffused with rufous ..... *nigricillata.*
b^4. Fore wing with the terminal area strongly suffused with rufous ..... *bipartita.*
b^3. Fore wing with the base blackish.
a^4 Fore wing with the terminal area strongly suffused with rufous ..... *insignis.*
b^4. Fore wing with the terminal area not suffused with rufous.
a^5. Fore wing with the ante- and postmedial lines absent ..... *fasciata.*
b^5. Fore wing with the ante- and postmedial lines present.
a^6. Hind wing without white postmedial and subterminal lines.
a^7. Fore wing without wedge-shaped white spot on outer edge of postmedial line at costa.
a^8. Fore wing with the terminal area white with patches of purplish grey ..... [illegible]
b^8. Fore wing with the terminal area dark with white subterminal line.
a^9. Fore wing with broad white antemedial band with waved edges. *undulata.*
b^9. Fore wing with the white antemedial band narrow and almost straight..... *monozona.*
b^7. Fore wing with small wedge-shaped white spot on outer edge of postmedial line at costa.
a^8. Fore wing strongly irrorated with silvery scales ..... [illegible]
b^8. Fore wing slightly irrorated with silvery scales.
a^9. Palpi yellow ..... [illegible]
b^9. Palpi fuscous and white ..... *æthiops.*
b^6. Hind wing with white postmedial and subterminal lines ..... [illegible]
b^1. Fore wing pale purplish brown.
a^2. Fore wing with black-brown medial band not reaching costa ..... [illegible]
b^2. Fore wing with large conical rufous antemedial patch ..... *theramozona.*
b. Fore wing red-brown with a silvery leaden gloss ..... *chrysoptilosa.*
B. Fore wing uniform white tinged with red-brown ..... *tapina.*

*5939. Eulocastra eurynipha. (Plate CLXVII. fig. 21.)

Eublemma eurynipha, Turner, Pr. Linn. Soc. N.S.W. 1902, p. 117.

♂. Palpi, frons, and thorax dark brown, vertex of head and tegulæ yellow; tarsi with pale rings; abdomen brown, the anal tuft yellow. Fore wing with the basal area dark brown, somewhat rufous at base and with waved black line on its outer edge; the medial half white with the costal edge black and a waved black line on its outer edge, excurved at middle and with the area beyond it dark brown; the termen white with dentate inner edge and

terminal series of black points; cilia brown and white. Hind wing whitish, the terminal area broadly suffused with brown with irregular inner edge. Underside of fore wing suffused with brown more deeply towards termen and with yellow apical patch.

Hab. Victoria, Birchip, type † ♂ in Coll. Lyell. *Exp.* 18 millim.

5940. Eulocastra argentifrons.

Thalpochares argentifrons, Butl. Ill. Het. B. M. vii. p. 65, pl. 130. f. 1 (1889); Hmpsn. Moths Ind. ii. p. 317.

Head and thorax black-brown slightly mixed with grey; pectus and legs whitish, the fore and mid legs suffused with fuscous, the fore tibiæ and tarsi ringed with white; abdomen ochreous white irrorated with brown. Fore wing white faintly tinged with red-brown especially towards termen; basal area black-brown, its outer edge sinuous; an antemedial black point on costa; an oblique triangular black-brown patch on middle of costa; a minute black point at lower angle of cell and a postmedial point on costa sometimes present; an indistinct diffused reddish brown postmedial line from vein 2 to inner margin; a faint diffused red-brown subterminal band; the termen narrowly black above and below middle, defined on inner side by a slight white line angled outwards at vein 4 to the cilia, which are black slightly mixed with grey. Hind wing whitish suffused with fuscous brown, the cilia with a fine whitish line at base; the underside ochreous white irrorated with brown.

Hab. Punjab, Simla, 2 ♂, Dharmsála (*Hocking*), 7 ♂, 5 ♀ type, Kangra Valley (*Dudgeon*), 3 ♂. *Exp.* 18–22 millim.

5941. Eulocastra nigrivittata. (Plate CLXVII. fig. 22.)

Bryophila nigrivittata, Warr. P. Z. S. 1888, p. 301; Hmpsn. Moths Ind. ii. p. 308.

♀. Head, thorax, and abdomen white slightly irrorated with brown; palpi, frons, and antennæ black; fore legs and mid tibiæ and tarsi above black, the hind tarsi black ringed with white. Fore wing white, the terminal area tinged with brown; the costal edge blackish towards base; medial area very broadly black, its inner edge obliquely curved and slightly waved, its outer slightly angled inwards at discal fold, excurved at middle, then incurved, defined on outer side by a fine white line; a black point on termen above tornus. Hind wing white, the terminal area suffused with brown; a diffused brown postmedial line slightly excurved at middle and defined by white on outer side; cilia white tinged with brown; the underside white, the costal and terminal areas irrorated with brown, a slight dark postmedial line and fine terminal line.

Hab. Punjab, Campbellpur (*Terbury*), 2 ♀ type. *Exp.* 22–26 millim.

5942. Eulocastra bipartita.

Apamea bipartita, Herr.-Schäff. Eur. Schmett. ii. p. 285, Noct. f. 175 (1845); Staud. Cat. Lep. pal. p. 230.
Xanthoptera mesozona, Hmpsn. P. Z. S. 1896, p. 261, pl. x. f. 9.
Thalerastria mediana, Staud. Iris. x. p. 295, pl. 4.f. 26 (1897).

♀ (*mesozona*). Head and thorax ochreous white faintly tinged with fulvous; fore tibiæ and tarsi blackish with pale rings; abdomen white with pale brown bands, the anal tuft ochreous. Fore wing ochreous white, the terminal area suffused with rufous; a small triangular black mark at base of costa; antemedial line represented by two black points on costa; a broad medial greyish black band defined at sides by deep black lines, somewhat oblique from costa to submedian fold; a black discoidal point; postmedial line with black point on costa, then represented by a faint silvery line excurved from below costa to vein 4; a black mark on costa with a white point on it before the silvery subterminal line, which is slightly angled outwards at vein 7 and excurved at middle; termen and cilia black. Hind wing whitish suffused with fuscous especially on terminal area; the underside ochreous white, the terminal area suffused with fuscous from apex to vein 2.

The figure of *bipartita* from Sicily has the medial band of fore wing slightly constricted below costa and strongly below the cell, the termen and cilia not black; it is probably a distinct species.

Hab. Sicily; Palestine; Aden (*Yerbury*), 1 ♀ type *mesozona*. *Exp.* 22 millim.

5943. Eulocastra insignis. (Plate CLXVII. fig. 23.)

Hydrillodes insignis, Butl. P. Z. S. 1884, p. 500.

Head and thorax glossy black; palpi greyish at base and extremity of 2nd joint; antennæ slightly ringed with yellowish; pectus and legs yellowish, the fore tibiæ and the tarsi banded with black; abdomen yellowish white, dorsally suffused with fuscous at middle. Fore wing pale yellow, the terminal area suffused with rufous; the basal area black with somewhat oblique outer edge; a broad black medial band, its inner edge excurved, its outer oblique from costa to vein 4, then incurved, defined by pale yellow on outer side before the rufous area; an oblique triangular postmedial black spot on costa; an apical black patch continued as a narrow band on termen to vein 4; cilia black towards apex and above tornus. Hind wing yellowish white, the inner and terminal areas suffused with brown; the underside yellowish slightly tinged with brown, an indistinct diffused curved postmedial line and fuscous brown apical patch.

Hab. Aden (*Yerbury*), 5 ♂, 3 ♀ type. *Exp.* 20–24 millim.

5944. Eulocastra fasciata.

Eulocastra fasciata, Butl. Trans. Ent. Soc. 1886, p. 419, pl. x. f. 6.

Head and base of tegulæ orange-yellow; palpi blackish behind; antennæ blackish ringed with yellow; thorax glossy black-brown slightly mixed with yellow; pectus and legs yellow, the fore tibiæ and tarsi banded with black; abdomen yellowish white. Fore wing yellowish white; the basal area glossy black-brown with a

Fig. 166.—*Eulocastra fasciata*, ♂. ½.

patch of yellowish white at base of inner margin and a subbasal striga from costa; a black-brown medial band, its inner edge waved, its outer excurved at lower angle of cell; a subtermina black-brown band, slightly angled inwards at discal fold and narrowing to tornus; black-brown patches on termen and cilia at middle and above tornus, Hind wing yellowish white, the underside with a black-brown patch at middle of costa and bar from costa before apex.

Ab. 1. Fore wing with the medial band obsolete on costal area and separated from a black discoidal spot.

Hab. N. Australia, Port Darwin (*Buckland*), 1 ♀; Queensland, Brisbane (*Turner*), 2 ♂, 2 ♀; N. S. Wales, Sydney, 1 ♂ type. *Exp.* 18–20 millim.

5945. Eulocastra quintana.

Acontia quintana, Swinh. P. Z. S. 1885, p. 455, pl. 27. f. 13; Hmpsn. Moths Ind. ii. p. 318.

Head and thorax whitish mixed with brown, the head tinged with ochreous; pectus and legs ochreous white, the fore tibiæ and tarsi brown ringed with white; abdomen white with indistinct brownish dorsal bands. Fore wing white, the basal area suffused with purple-grey, a tuft of raised rufous scales below base of cell, its outer edge sinuous with tufts of raised black scales below costa and cell and above inner margin; antemedial line purplish, double, erect, waved, with two blackish points on it at costa and a point on its outer edge in cell; medial area purplish grey with a black spot in end of cell defined by white on outer side; a sinuous rufous medial line from cell to inner margin; postmedial line

double, bent inwards to costa and incurved at discal and submedian folds; subterminal line white defined on inner side by a dark patch at costa and with a broad purplish band before it interrupted at discal and submedian folds, and with two white points on costa and the area beyond it purplish except at apex, slightly angled inwards below costa and at discal and submedian folds; a terminal series of blackish points; cilia purplish brown and white. Hind wing white slightly tinged with brown towards termen; a fine terminal brown line; the underside yellowish white with some brown suffusion on costa at middle and apex.

Ab. 1. Fore wing with patches of black and rufous scales on inner medial area replacing the sinuous line, black points before subterminal line below costa and at middle.

Hab. Bengal, Moghal Serai (*Betton*), 1 ♀; Bombay, Kuteh, 1 ♂, Poona (*Swinhoe*), 2 ♀ type, Khandalla (*Swinhoe*), 1 ♀; Madras, Belgaum (*Watson*), 2 ♂. *Exp.* 16–20 millim.

This may be a variety of *E. undulata*.

5946. Eulocastra undulata.

Erastria undulata, Snell. Veth's Midden-Sumatra, Lep. p. 45 (1889).
Acontia excisa, Swinh. P. Z. S. 1885, p. 455; Hmpsn. Moths Ind. ii. p. 318.
Acontia excisa, Butl. Ill. Het. B. M. vii. p. 61, pl. 129. ff. 5, 6 (1889).

Head and thorax black-brown mixed with purplish grey, the head tinged with ochreous; legs yellowish, the tibiæ and tarsi banded with black; abdomen fuscous brown with slight pale segmental lines, the ventral surface yellowish. Fore wing purplish grey suffused in parts with cupreous brown; a broad antemedial white band, its inner edge sinuous with patches of raised black scales on it and the sinuous antemedial purplish line near its outer edge; orbicular a white point defined by black on outer side, the reniform a narrow bar faintly defined by white and with black spot before it in end of cell; medial line blackish, rather diffused and irregularly waved; postmedial line double filled in with whitish and with blackish spots before it at discal and submedian folds, excurved below costa and incurved at discal and submedian folds; postmedial area with indistinct waved dark line and some white points on costa; subterminal line white, dentate, angled inwards at discal and submedian folds; a white apical patch; a terminal series of black points slightly defined by white on inner side; cilia grey-brown, white towards apex. Hind wing whitish suffused with purplish grey; traces of a dark discoidal point and whitish postmedial band.

Ab. 1. Fore wing with the postmedial line placed on a pure white band and without the white patch at apex and on cilia; abdomen yellowish with dark bands.

Hab. Correa, Douglas Inlet (*B. Fletcher*), 1 ♂; Punjab, Simla

(*Harford*), 3 ♀, Dharmsála (*Hocking*), 2 ♂, 4 ♀ type *exvisa*, Butl., Almorah (*Boys*), 1 ♂; Bombay, Khandalla (*Swinhoe*), 1 ♀; Madras, Belgaum (*Watson*), 1 ♂, 1 ♀, Nilgiris, 1 ♀, Coimbatore (*Wallhouse*), 1 ♀ type *exvisa*, Swinh.; Burma, Thayetmyo (*Watson*), 2 ♀; Nicobars, Camorta, 1 ♂; Philippines, Luzon (*McGregor*), 1 ♀; Sumatra, type † in Mus. Leyden; Celebes. *Exp.* 16–22 millim.

5947. Eulocastra monozona, n. sp. (Plate CLXVII. fig. 24.)

♀. Head and thorax dark purplish grey suffused with olive-brown; fore tibiæ and the tarsi ringed with white; abdomen dark purplish grey. Fore wing dark purplish grey suffused in parts with red-brown; subbasal line double filled in with whitish, excurved below costa and ending at submedian fold where there are some diffused black scales beyond it; a somewhat inwardly oblique white antemedial band with the nearly straight dark antemedial line on it, its edges very slightly sinuous; orbicular represented by a slight white spot with oblique black striga on its outer edge, the reniform by a white discoidal striga with black spot before it; an indistinct waved blackish medial line; post-medial line double, black filled in with white towards costa, slightly bent outwards below costa, then minutely waved, incurved at discal fold and below vein 4, some white points beyond it on costa; subterminal line white, defined on inner side by somewhat dentate black marks from below costa to vein 3, then by slight whitish lunules, excurved below vein 7 and at middle; a whitish apical patch; a terminal series of minute black lunules; cilia whitish and brown. Hind wing greyish suffused with fuscous brown, the cilia whitish.

Hab. Gambia, Bathurst (*Sir G. Carter*), 1 ♀ type. *Exp.* 18 millim.

5948. Eulocastra argentisparsa, n. sp. (Plate CLXVII. fig. 25.)

♂. Head and thorax dark brown mixed with white and some rufous scales; palpi mostly rufous at sides; patagia with black bar near extremity; metathorax with blue-black patch; pectus white; legs banded black and white; abdomen greyish fuscous with white segmental lines, the ventral surface white. Fore wing very dark cupreous brown thickly irrorated with metallic silvery scales; some white at base of inner margin; subbasal line represented by white striæ from costa and in cell; an antemedial white band, narrowing to costa, its edges waved, with black line on its outer edge and series of points at middle representing the antemedial line; orbicular a minute black spot with white bar on its outer edge, the reniform a black spot angled inwards on median nervure and with slight brown and white line on it; postmedial line black expanding into spots on inner side at disc

and submedian folds and with white bar on outer at costa and striga at inner margin, bent outwards below costa, slightly incurved at discal fold, incurved below vein 4 and slightly excurved at vein 1, some white points beyond it on costa: subterminal line ill-defined, white with slight black marks before it from below costa to vein 4, angled inwards at discal and submedian folds; a waved terminal black line with diffused white band before it; cilia fuscous and whitish with white spots at base and slight dark line at middle. Hind wing white suffused with fuscous, a slight discoidal point, dark postmedial line with white band beyond it, and fine dark terminal line; cilia with white spots at base and white line near tips; the underside with white subterminal band.

Hab. Madras, Gooty (*Campbell*), 1 ♂ type. *Exp.* 20 millim.

5949. Eulocastra fasciolata. (Plate CLXVII. fig. 26.)

Erastria fasciolata, Butl. Trans. Ent. Soc. 1886, p. 403.

♂. Head and thorax red-brown mixed with some rufous and white scales; palpi, pectus, and legs yellow, the tibiæ and tarsi banded with brown; abdomen yellow with dorsal brown bands. Fore wing red-brown with patches of metallic silvery scales; subbasal line represented by a white point on costa; a white antemedial line narrowing towards costa and edged by irregularly waved black lines; a black spot in end of cell; postmedial line black expanding into a patch at submedian interspace and with wedge-shaped white patch on its outer edge at costa and point at inner margin, oblique towards costa and slightly incurved at discal and submedian folds, some white points beyond it on costa; subterminal line defined on each side by slight black marks from below costa to vein 3, then with some white on outer side, somewhat excurved below vein 7 and at middle; a terminal series of slight blackish lunules more or less strongly defined by white on inner side; cilia brown more or less chequered with white. Hind wing dark reddish brown; a darker terminal line and slight pale line at base of cilia; the underside with some white at base of costa, a patch in end of cell, a sinuous postmedial band, and subterminal series of spots.

Hab. Queensland, Peak Down, 1 ♂ type; N. S. Wales (*Raynor*), 1 ♂. *Exp.* 16–22 millim.

5950. Eulocastra æthiops. (Plate CLXVII. fig. 27.)

Tarache æthiops, Dist. A. M. N. H. (7) i. p. 223 (1898).

Head and thorax red-brown mixed with some white and purple scales, the patagia with black bar towards tips; palpi, pectus, and legs whitish mixed with brown, the tarsi brown ringed with white; abdomen brown with white segmental lines, the ventral surface white. Fore wing cupreous brown largely suffused with silvery

purple and irrorated with some black; a white antemedial band edged by waved black lines, narrowing to costa and usually with a few dark scales at middle representing the antemedial line; orbicular represented by a slight black spot, the reniform by a black spot with white striga on its outer edge; an indistinct sinuous black medial line; postmedial line black slightly defined by white on outer side and with wedge-shaped white patch at costa and some black before it at discal and submedian folds, slightly bent outwards below costa and incurved at discal fold and below vein 4, some white points beyond it on costa; subterminal line indistinct, rufous with black marks before and beyond it, excurved below vein 7 and at middle; a terminal series of small black lunules defined on inner side by a waved white line; cilia blackish with more or less white at apex, middle, and tornus. Hind wing fuscous slightly irrorated with white; the underside whitish thickly irrorated with fuscous, a dark discoidal bar, curved postmedial line defined by whitish on outer side, and more or less prominent subterminal series of white points.

Ab. 1. ♂. Fore wing with the cilia white with dark spots; hind wing white with slight discoidal bar and curved postmedial line, the terminal area suffused with fuscous from apex to vein 2.

Hab. Br. E. Africa, Machakos (*Crawshay*), 1 ♂, Kikuyu, Kiu (*Crawshay*), 1 ♂, 1 ♀; Kilimakiu, 1 ♀; N. Rhodesia. Kambove Distr. (*Neave*), 2 ♀: Mashonaland, Salisbury (*Marshall*), 1 ♂, 1 ♀. Umtali (*Marshall*), 1 ♀; Rhodesia, Bulawayo (*Eyles*), 1 ♂; Transvaal, White R. (*Cooke*), 1 ♀, Piet Retief (*Janse*), 1 ♀, Johannesburg (*Cooke*), 1 ♀. *Exp.* 22–24 millim.

5951. Eulocastra hypotænia. (Plate CLXVII. fig. 28.)

Microphysa hypotænia, Wllgrn. Wien. Ent. Mon. iv. p. 173 (1860).

♂. Head, thorax, and abdomen chocolate-brown mixed with grey, the last with whitish segmental bands; palpi, pectus, legs, and ventral surface of abdomen white irrorated with fuscous. Fore wing glossy grey suffused and irrorated with chocolate-brown, the medial and apical areas rather darker; subbasal line indistinct, double, from costa to submedian fold; antemedial line double filled in with white, almost straight and with a dark shade on its outer edge; reniform with whitish annulus, a black bar on its inner edge, oblique, its lower extremity produced and with dark patches beyond and below it; postmedial line double filled in with yellowish and defined by white on outer side, slightly excurved to vein 4, then incurved; subterminal line grey defined on inner side by dark brown, very slightly excurved below vein 7 and at middle; a dark terminal line; cilia with a slight dark medial line. Hind wing white, the base tinged with brown; a brown medial band excurved beyond the cell and conjoined to the upper and lower extremities of a quadrate discoidal spot, excurved in submedian interspace;

brown subterminal band excurved at middle and bent outwards to termen above tornus; a narrow brown terminal band; cilia white mixed with brown. Underside of fore wing white with some brown suffusion on costa and below the cell to postmedial line, the orbicular and reniform black, postmedial and subterminal black bands not reaching inner margin, a black apical patch and terminal line; hind wing white with some black irroration on base of costa, a quadrate blackish spot in middle of cell, the other markings as above but darker.

Hab. Br. E. Africa, Machakos (*Crawshay*), 1 ♂, Eb Urru (*Betton*), 1 ♂, Naitolia (*Betton*), 1 ♂; Transvaal (*Janse*), 1 ♂, Piet Retief (*Crawshay*), 4 ♂; Zululand, Tugela R. (*Reynolds*), 1 ♂; Natal, Mooi R., 1 ♂, Durban (*Gooch, Leigh*), 2 ♂; Orange R. Colony, Bloemfontein (*Eckersley*), 1 ♀. *Exp.* 20–26 millim.

5952. Eulocastra phæozona, n. sp. (Plate CLXVII. fig. 29.)

♂. Head and front half of thorax bright rufous, the hinder part of thorax pale reddish ochreous; pectus, legs, and abdomen ochreous tinged with red-brown, the fore legs rufous. Fore wing ochreous tinged with pale purplish brown, the costal and terminal areas irrorated with dark brown; a medial black-brown band from below costa to inner margin, its inner edge angled inwards at median nervure and vein 1, its outer edge angled outwards at lower angle of cell and above inner margin and inwards at submedian fold; a black-brown spot at apex and some points on termen above tornus. Hind wing pale reddish thickly irrorated with brown: the underside whitish slightly irrorated with brown.

Hab. W. Australia, Sherlock R. (*Clements*), 1 ♂ type. *Exp.* 24 millim.

5953. Eulocastra thermozona, n. sp. (Plate CLXVII. fig. 30.)

Head and thorax rufous; pectus, legs, and abdomen ochreous tinged with rufous. Fore wing pale purplish grey thickly irrorated with brown; an oblique brown line defined on inner side by yellowish from subcostal nervure before middle to vein 1 near base, the area beyond it deep rufous except towards costa to the medial brown line defined on outer side by yellowish, arising at subcostal nervure, angled outwards to discocellulars, then rather oblique, sinuous; a terminal series of dark points except at apex. Hind wing greyish suffused with brown, a terminal series of slight dark points; cilia whitish; the underside ochreous white, the costal area slightly irrorated with brown.

Hab. W. Australia, Sherlock R. (*Clements*), 1 ♂, 2 ♀ type. *Exp.* 18–24 millim.

5954. Eulocastra chrysarginea. (Plate CLXVII. fig. 31.)

Cophanta chrysarginea, Schaus, Proc. U.S. Nat. Mus. xxx. p. 105 (1906).

♂. Head whitish tinged with red-brown; palpi brown, the tips of 2nd and 3rd joints white; frons with lateral brown bars; antennæ brown; thorax dark cupreous brown; pectus and legs with a greyish tinge, the tarsi white; abdomen dark cupreous brown, the 2nd and anal segment ringed with white, the ventral surface with white patches on first three segments. Fore wing cupreous red-brown with a silvery leaden gloss especially on medial area; antemedial line fine, double, black filled in with yellow and defined on outer side by golden brown, minutely waved; a golden-brown shade before the postmedial line, which is represented by an oblique yellow striga from costa and yellow striga from inner margin, almost obsolete at middle, some white points beyond it on costa and a small spot towards apex; a terminal series of slight black points and a white point below apex. Hind wing dark cupreous brown, the cilia whitish at tips; the underside tinged and irrorated with grey, a slight discoidal striga and indistinct curved postmedial line.

Hab. Brazil, São Paulo (*D. Jones*), 2 ♂. *Exp.* 20 millim. Type † in U.S. Nat. Mus.

*5955. Eulocastra tapina. (Plate CLXVII. fig. 32.)

Eulocastra tapina, Püng. ined.

Head, thorax, and abdomen white slightly tinged with brown; antennæ brownish. Fore wing white faintly tinged with reddish brown; traces of a waved brownish subbasal line from costa to vein 1; antemedial brown points on costa, below median nervure, and at inner margin; a faint oblique brown striga from middle of costa; traces of a brownish postmedial line, oblique from costa to discal fold and bent inwards at submedian fold; a terminal series of faint brownish striæ. Hind wing white tinged with reddish brown. Underside of both wings white faintly tinged with reddish brown.

Hab. Palestine, type †♂, ♀ in Coll. Püngeler. *Exp.* ♂ 18, ♀ 22 millim.

Genus NARANGA.

	Type.
Naranga, Moore, P. Z. S. 1881, p. 359	*diffusa*.

Proboscis aborted, minute; palpi upturned, the 2nd joint reaching about to middle of frons and smoothly scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male laminate and almost simple; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled, the

spurs long; abdomen without crests. Fore wing with the apex rectangular, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3, 4 from angle of cell or shortly stalked; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing yellow and blood-red.
  a. Fore wing of male with the terminal area suffused with blood-red ..... *diffusa*.
  b. Fore wing with the terminal area not suffused with blood-red .....
B. Fore wing ochreous suffused with dull ruf[illegible] ... .

5956. Naranga diffusa.

Xanthodes diffusa, Wlk. xxxiii. 779 (1865); Moore, Lep. Ceyl. iii. p. 49, pl. 150. f. 17; Hmpsn. Moths Ind. ii. p. 333.
Xanthoptera dimorpha, Snell. Veth's Midden-Sumatra, Lep. p. 45 (1880).
Naranga quadrivittata, Moore, Lep. Atk. p. 134 (1882).
Naranga ferruginea, Moore, Lep. Atk. p. 134 (1882).

♂. Head, thorax, and abdomen brownish ochreous. Fore wing with the basal area ochreous yellow; the costal edge blood-red towards base; a broad diffused blood-red subbasal band from below costa to above inner margin, its outer edge oblique and sinuous; an oblique blood-red medial band expanding slightly at costa and inner margin and with waved edges, followed by an oblique yellow

Fig. 167.—*Naranga diffusa*, ♂. ½.

band with waved outer edge; the terminal area suffused with blood-red; cilia yellow. Hind wing dark brown: the cilia yellow tinged with red-brown at base. Underside of both wings dark brown with some yellow at base, the costa and apex of fore wings and the cilia of both wings yellow.

♀. Fore wing yellow faintly tinged with red; a narrow very oblique red band from costa beyond middle to middle of inner margin with slightly waved edges and expanding into a brown lunule in submedian interspace; an oblique red fascia from apex to discal fold; hind wing ochreous white; underside of fore wing yellow.

Hab. Punjab. Dharmsála (*Hocking*), 2 ♂, 5 ♀: Bengal, Calcutta, 7 ♂, 10 ♀ type *quadrivittata*; Madras (*Watson*), 1 ♂, 1 ♀.

Belgaum (*Watson*), 1 ♀, Nilgiris, 2 ♀; Ceylon (*Templeton*), 1 ♀ type; Burma, Rangoon (*Scott*), 1 ♂, 1 ♀; Straits Settlements, Selangor, Kuala Lumpur (*Durham*), 1 ♀; Sumatra, type ♀ *dimorpha* in Coll. Snellen; Java (*Horsfield*), 1 ♀. *Exp.* 20–26 millim.

5957. **Naranga ænescens.** (Plate CLXVIII. fig. 3.)

Naranga ænescens, Moore, P. Z. S. 1881, p. 359.

♂. Head, thorax, and abdomen golden yellow mixed with some dull rufous. Fore wing golden yellow; the costal edge reddish towards base; some slight blood-red suffusion on basal inner area; an oblique medial blood-red band, its outer edge slightly angled at discal and submedian folds; an oblique blood-red fascia from apex to discal fold, followed by a line slightly angled inwards in submedian fold, then bent outwards to tornus. Hind wing dark reddish brown, the cilia yellow. Underside of fore wing yellow suffused with brown except on terminal area; hind wing yellow.

♀. Head, thorax, abdomen, and fore wing ochreous yellow, the last with the medial band not extending to costa but represented by a reddish streak in and beyond end of cell, a dark discoidal point and brown band from vein 2 to inner margin; hind wing yellow suffused with pale brown except at termen.

Ab. 1. ♂. Fore wing deep brassy yellow with the markings less prominent.

Ab. 2. ♀. Fore wing with the medial band hardly traceable except a discoidal point and brownish spot in submedian interspace, the subterminal band almost obsolete; hind wing yellow without brown tinge.

Hab. Japan, Fusiki (*Leech*), 1 ♂, 1 ♀, Kiushiu, 1 ♀, Tsuruga (*Leech*), 1 ♀, Tokio (*Marcus*), 1 ♀, Yokohama (*Pryer*), 1 ♂, 1 ♀; C. China, Shanghai (*Pryer*), 1 ♀, Fokien, Ting-hai (*de la Garde*), 1 ♂, 1 ♀; Formosa, 2 ♂ type. *Exp.* 18–24 millim.

5958. **Naranga brunnea**, n. sp. (Plate CLXVIII. fig. 4.)

Naranga hebescens, Leech, Trans. Ent. Soc. 1900, p. 157 (nec Butl.).

♂. Head, thorax, and abdomen yellow mixed with dull rufous; pectus, legs, and ventral surface of abdomen ochreous whitish. Fore wing ochreous yellow suffused with dull rufous: a dark discoidal point and indistinct oblique dull rufous band from lower angle of cell to inner margin; postmedial area more ochreous followed by a diffused dull reddish-brown band leaving the termen narrowly ochreous; cilia ochreous. Hind wing reddish brown; cilia ochreous tinged with reddish brown at base; the underside ochreous irrorated with brown.

♀. Fore wing with the veins slightly streaked with ochreous.

Hab. Japan, Yokohama (*Pryer*), 2 ♂, 4 ♀ type; C. China, Ningpo (*Leech*), 1 ♂. *Exp.* 18–22 millim

Genus NARANGODES, nov.

Type, *N. hæmorranta*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to middle of frons and moderately fringed with hair, the 3rd moderate; frons smooth; eyes large, round; antennæ of male somewhat laminate and ciliated; thorax smoothed with scales and hair mixed and without crests; tibiæ smoothly scaled; abdomen without crests. Fore wing rather narrow, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from well above angle; 6, 7 shortly stalked; 8 anastomosing with the cell to middle.

A. Fore wing suffused with blood-red, the postmedial line irregular ..... *hæmorranta*.

B. Fore wing not suffused with blood-red, the postmedial line slightly curved ..... *nigridiscata*.

5959. Narangodes hæmorranta, n. sp.

♀. Head and thorax dull rufous mixed with grey-white; pectus, legs, and abdomen grey-white tinged with brown. Fore wing greyish white suffused with dull blood-red; a whitish streak on

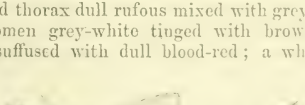

Fig. 168.—*Narangodes hæmorranta*, ♀. ½.

median nervure; traces of a whitish antemedial line angled outwards on median nervure and inwards in submedian fold, defined on outer side by deeper red in and below cell; a small deep red discoidal lunule; a narrow rather diffused deep red postmedial band, oblique from costa to submedian fold and angled outwards beyond lower angle of cell; subterminal line whitish, oblique from apex and defined on inner side by dark brown, then diffused on postmedial area, angled outwards at vein 7 and middle and inwards at discal and submedian folds; cilia whitish mixed with red. Hind wing brown tinged with grey, the cilia whitish; the underside grey tinged with brown, a slight discoidal point, traces of a postmedial striga from costa and subterminal line.

Hab. Loo-choo Is. (*Pryer*), 2 ♀ type. *Exp.* 24 millim.

5960. Narangodes nigridiscata. (Plate CLXVIII. fig. 5.)

Eublemma nigridiscata, Swinh. A. M. N. H. (7) vii. p. 471 (1901).

♂. Head, thorax, and abdomen grey-white mixed with some brown. Fore wing grey-white irrorated with red-brown; sub-

basal line represented by brown points below costa and cell; antemedial line represented by a brown spot on costa and oblique line from cell to inner margin, diffused on outer side; a triangular black-brown discoidal spot; postmedial line brown, diffused on inner side and defined by white on outer, slightly curved; a faint diffused brown subterminal shade; a brown terminal line; cilia with a slight brown line through them. Hind wing white faintly tinged with brown; a reddish brown terminal line; the underside whitish irrorated with red-brown, a brown discoidal spot.

Hab. Queensland, Duaringa, 1 ♂ type. *Exp.* 14 millim.

Genus **MIMASURA**, nov.

Type, *M. tripuncta.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and moderately scaled, the 3rd moderate or rather long; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed chiefly with scales and without crests; tibiæ smoothly scaled; abdomen without crests. Fore wing rather long and narrow, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell or stalked; 5 almost fully developed from well below middle of discocellulars or from lower angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Antennæ of male somewhat laminate and minutely ciliated; palpi with the 3rd joint long.

A. Fore wing with black discoidal point.
  a. Fore wing with ante- and postmedial lines present..... *simplex.*
  b. Fore wing with the ante- and postmedial lines absent ... *unipuncta.*
B. Fore wing without black discoidal point..... *asticta.*

*5961. Mimasura simplex. (Plate CLXVIII. fig. 6.)

Eublemma simplex, Rebel, Denk. Math.-nat. Akad. Wissens. lxxi. p. 62 (1907).

♂. Head, thorax, and abdomen whitish; palpi brown with white ring at extremity of 2nd joint; antennæ brown; legs tinged with brown. Fore wing whitish faintly tinged with brown; a very indistinct oblique sinuous antemedial line; minute black points at middle of cell and on discocellulars; postmedial line indistinct, dark, excurved from costa to vein 4, then incurved; a terminal series of minute black points. Hind wing white slightly tinged with rufous.

Hab. Sokotra, type ♂ in Mus. Vienna. *Exp.* 18 millim.

5962. Mimasura unipuncta.

Xanthoptera unipuncta, Hmpsn. Ann. S. Afr. Mus. ii. p. 398 (1902).

♂. Head and thorax ochreous tinged with red-brown; 3rd joint of palpi, upper part of frons, and antennæ black; fore and mid tibiæ blackish, the fore tarsi blackish with slight pale rings; abdomen orange-yellow. Fore wing greyish ochreous, the costal area yellower; a black point in discal fold below origin of vein 2; a round black discoidal spot; subterminal spots above vein 6 and below 4 and a slight streak in discal fold. Hind wing yellowish white. Underside of fore wing with some fuscous suffusion in and below cell.

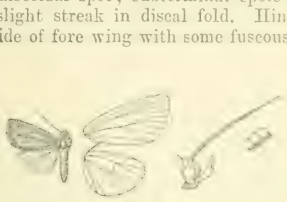

Fig. 169.—*Mimasura unipuncta*, ♂. ½.

♀. Abdomen fuscous; fore wing with the black discoidal spot only, sometimes with traces of the subterminal spots; hind wing suffused with fuscous brown.

Hab. Mashonaland, Salisbury (*Marshall*), 1 ♀ type; Transvaal, White R. (*Cooke*), 2 ♂, 1 ♀. *Exp.* 20 millim.

5963. Mimasura asticta, n. sp. (Plate CLXVIII. fig. 7.)

♂. Head, thorax, and abdomen greyish ochreous tinged with fuscous; palpi with the 2nd joint in front except at base and the 3rd joint black; frons and antennæ black. Fore wing greyish ochreous, the costal edge blackish on basal half. Hind wing ochreous white tinged with brown. Underside of fore wing with the disk tinged with fuscous.

Hab. Sierra Leone (*Clements*), 1 ♂ type. *Exp.* 18 millim.

Sect. II. Antennæ of male with long cilia, not laminate; palpi with the 3rd joint short.

A. Hind wing with veins 3, 4 stalked, 5 from lower angle of cell.

5964. Mimasura quadripuncta.

Mimasura quadripuncta, Hmpsn. P. Z. S. 1910, p. 412.

Head and tegulæ orange, thorax ochreous white; pectus, legs, and abdomen orange. Fore wing ochreous white, the costa narrowly orange; obliquely placed ante- and postmedial black spots in sub-

median fold and on inner margin; cilia tinged with yellow. Hind wing pale yellow.

Fig. 170.—*Mimasura quadripuncta*, ♂. ½.

Hab. N.E. Rhodesia, Luangwa Valley (*Neave*), 1 ♂ type. *Exp.* ♂ 26, ♀ 30 millim.

B. Hind wing with veins 3, 4 from cell, 5 from above angle.
  a. Fore wing with medial line and double postmedial line ..... *clara*.
  b. Fore wing without lines.
    a^1. Fore wing with two black discoidal points ..... *disticta*.
    b^1. Fore wing with black point at lower angle of cell ... *tripuncta*.
    c^1. Fore wing without discoidal point.
      a^2. Fore wing with the costa not dark brown with white striæ towards apex.
        a^3. Hind wing tinged with fuscous.
          a^4. Fore wing ochreous yellow ..... *impuncta*.
          b^4. Fore wing ochreous white ..... *innotata*.
        b^3. Hind wing yellowish white ..... *albiceris*.
      b^2. Fore wing with the costa towards apex dark brown with white striæ ..... *strigivostalis*.

5965. **Mimasura clara.** (Plate CLXVIII. fig. 8.)

Miltochrista clara, Holl, Psyche, vi. p. 400 (1893).

♀. Head and thorax ochreous white; palpi with the 2nd joint black behind; fore tibiæ blackish towards extremity; abdomen ochreous. Fore wing ochreous white with a faint flesh-coloured tinge; subbasal line represented by a slight fuscous mark on costa and black spot in cell, the antemedial line by a slight fuscous mark on costa and black spots below costa and cell; an irregular diffused blackish medial line angled outwards below costa and above inner margin and bent outwards at middle; two black discoidal points; postmedial line rather diffused, blackish, double except towards costa, excurved below costa and at middle and angled inwards at discal and submedian folds; two black points on termen above middle, and one or two below middle. Hind wing ochreous, the terminal area faintly tinged with brown.

Hab. Nigeria, Old Calabar (*Rutherford*) 1 ♀, Sapele (*Sampson*), 1 ♀; Gaboon, Ogové R., type † in Coll. Holland. *Exp.* 24 millim.

5966. **Mimasura disticta**, n. sp. (Plate CLXVIII. fig. 9.)

♂. Head and thorax ochreous white; palpi tinged with fuscous behind; abdomen ochreous yellow. Fore wing ochreous white; a small subbasal black spot in cell; small dark antemedial spots below costa, in submedian fold and above inner margin; two small black discoidal spots; traces of medial and more distinct postmedial spots in submedian fold; traces of a subterminal series of spots; terminal black points below apex, above and below vein 5 and below veins 3 and 2. Hind wing pale yellow; the underside with slight terminal brown spots from apex to vein 3.

Hab. Sierra Leone (*Clements*), 1 ♂ type. *Exp.* 20 millim.

5967. **Mimasura tripuncta.**

Xanthoptera tripuncta, Hmpsn. Ann. S. Afr. Mus. ii. p. 398 (1902).

Head and thorax yellow; pectus and legs suffused with fuscous, abdomen yellow suffused with fuscous. Fore wing yellowish white, the costa yellow; a black point in base of cell and larger rounded spots in middle of cell and at lower angle; cilia yellow. Hind

Fig. 171.—*Mimasura tripuncta*, ♂. ½.

wing pale ochreous tinged with brown, more strongly in female; cilia yellowish white. Underside of fore wing fuscous brown, the costa and termen yellow.

Hab. Mashonaland, Salisbury (*Marshall*), 2 ♀ type; Transvaal, White R. (*Cooke*), 1 ♂. *Exp.* 22 millim.

5968. **Mimasura impuncta**, n. sp. (Plate CLXVIII. fig. 10.)

Head, thorax, and abdomen ochreous yellow; fore tibiæ and tarsi brown. Fore wing uniform ochreous yellow. Hind wing pale ochreous tinged with brown. Underside of fore wing suffused with brown; hind wing ochreous white, the costa tinged with brown.

Hab. Punjab, Mean Meer (*Harford*), 1 ♂; Bombay, Kutch, 1 ♂, 1 ♀ type, Bombay, 1 ♂; Travancore, Pirmád (*Mrs. Iuraay*), 1 ♂. *Exp.* 16–20 millim.

5969. **Mimasura innotata.** (Plate CLXVIII. fig. 11.)

Mimasura innotata, Hmpsn. P. Z. S. 1910, p. 412.

♂. Head, thorax, and abdomen ochreous white slightly tinged with brown; palpi orange-yellow. Fore wing silky ochreous white, the costal edge yellow. Hind wing whitish suffused with fuscous brown. Underside of fore wing suffused with fuscous brown.

Hab. N.E. Rhodesia, E. Luangwa Distr. (*Neave*), 1 ♂ type; Transvaal, Johannesburg (*Cregoe*), 1 ♂. *Exp.* 20 millim.

5970. **Mimasura albiceris.** (Plate CLXVIII. fig. 12.)

Xanthoptera albiceris, Turner, Tr. R. Soc. S. Austr. xxvii. p. 11 (1903).

♂. Head, thorax, and abdomen pale ochreous yellow; fore and mid tibiæ and tarsi tinged with brown. Fore wing yellowish white, the costal edge brownish towards base. Hind wing yellowish white. Underside of fore wing tinged with brown.

Hab. Queensland, Peak Downs, 1 ♂. *Exp.* 18 millim. Type † in Coll. Turner.

5971. **Mimasura strigicostalis**, n. sp. (Plate CLXVIII. fig. 13.)

♂. Head and tegulæ yellow; palpi blackish; frons whitish; antennæ brown; thorax and abdomen whitish tinged with brown. Fore wing whitish tinged with brown except on costal area; the costal edge yellow except towards apex, where it is dark brown with four oblique white striæ; a distinct white spot at apex; a terminal series of slight dark points defined on inner side by white striæ. Hind wing whitish suffused with brown; a fine brown terminal line.

Hab. Travancore, Pirmád (*Mrs. Imray*), 2 ♂ type. *Exp.* 20 millim.

Genus **FLAMMONA.**

Type.

Flammona, Wlk. Journ. Linn. Soc., Zool. vii. p. 55 (1864) ... *quadrifasciata.*

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching about to middle of frons and moderately scaled, the 3rd short and broadly scaled; frons smooth; eyes large, round; antennæ of male strongly laminate; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed, from just above angle; 6, 7 shortly stalked; 8 anastomosing with the cell near base only.

A. Fore wing with the postmedial line bent outwards to costa near apex ..... *trilineata.*

B. Fore wing with the postmedial line not bent outwards to costa ..... *quadrifasciata.*

5972. Flammona trilineata. (Plate CLXVIII. fig. 14.)

Flammona trilineata, Leech, Trans. Ent. Soc. 1900, p. 562.

♂. Head, thorax, and abdomen grey mixed with brown. Fore wing purplish grey thickly irrorated with brown; a narrow erect black-brown antemedial band; a small black spot in middle of cell; an oblique black-brown medial band, diffused on outer side; a blackish discoidal bar; a narrow black-brown postmedial band, slightly defined on inner side by white and with brown suffusion beyond it, arising from costa towards apex, inwardly oblique to discal fold, then erect; a minutely waved white subterminal line. Hind wing whitish suffused with purplish brown; the underside with slight dark irroration, a small black discoidal spot and indistinct diffused oblique postmedial line.

Hab. Centr. China, Kiukiang (*Pratt*), 1 ♂ type, Chungking, 1 ♂. *Exp.* 30 millim.

5973. Flammona quadrifasciata.

Flammona quadrifasciata, Wlk. Journ. Linn. Soc., Zool. vii. p. 55 (1864); Swinh. Cat. Het. Mus. Oxon. ii. p. 66, pl. 1. f. 24.

Head purplish grey mixed with chocolate-brown; palpi chocolate, white at tips; antennæ with the basal joint and the shaft above towards extremity white; thorax chocolate-brown with some white at tips of patagia; tibiæ at sides and tarsi white; abdomen white suffused with chocolate-red, the extremity whitish. Fore wing white almost entirely suffused with purple-grey; slightly incurved antemedial and medial deep chocolate-brown bands; a discoidal striga; an oblique postmedial line defined on inner side by white;

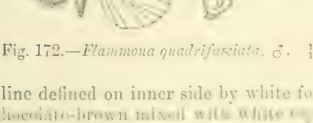

Fig. 172.—*Flammona quadrifasciata*. ♂. ½.

a subterminal line defined on inner side by white forming a spot at vein 6; cilia chocolate-brown mixed with white especially towards tornus. Hind wing white suffused with purplish red and with purplish red terminal band, the area before it whiter; a fine white terminal line; cilia white mixed with purplish red; the underside with the costal half purplish red irrorated with white, the inner half white, a slight red subterminal line.

Hab. Straits Settlements, Pahang (*Hullett*), 1 ♀, Perak, Larut Hills (*Flower*), 1 ♂; Singapore (*Hullett*), 2 ♂, 2 ♀; Borneo, Sarawak (*Wallace*), 2 ♂, 1 ♀, Pasir, 1 ♂. *Exp.* 34–36 millim.

Genus **MENEPTERA**, nov.

Type, *M. diopis*.

Proboscis aborted, minute; palpi porrect, not extending beyond the frontal prominence and moderately scaled, the 3rd joint short; frons with long truncate conical prominence with raised edges at extremity; eyes rather small and elliptical; antennæ of female ciliated; thorax clothed with hair and scales mixed and without crests; tibiæ moderately fringed with hair; abdomen without crests. Fore wing narrow, the costa excised beyond middle; the apex produced upwards, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from well below middle of discocellulars; 6, 7 stalked; 8 anastomosing with the cell to middle.

5974. **Meneptera diopis.**

Tarache diopis, Hmpsn. Ann. S. Afr. Mus. iii. p. 435 (1905).

♀. Head and thorax black-brown; pectus, legs, and abdomen dark reddish brown. Fore wing red-brown with slight dark irroration; orbicular and reniform small, white, the former round, the latter lunulate, a black patch between them; postmedial line pale rufous, indistinct, rather obliquely curved; subterminal line

Fig. 173.—*Meneptera diopis*, ♀. ⅔.

represented by a slight whitish point on costa; cilia whitish tinged with rufous. Hind wing dark cupreous brown; cilia whitish tinged with rufous; the underside fuscous brown.

Hab. Transvaal, Piet Retief (*Crawshay*), 1 ♀ type. *Exp.* 24 millim.

Genus **PSEUDOSTERRHA**.

Type.

Pseudosterrha, Rebel, Staud. Cat. Lep. pal. p. 373 (1901) non descr. ..... *oromaria*.

Proboscis fully developed; palpi porrect, hardly reaching beyond the frons which is smooth; eyes large, round; ocelli present; antennæ of female ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen without crests. Fore wing narrow, the apex produced and acute, the termen obliquely curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 stalked; 5 nearly fully developed from below middle of discocellulars; 6, 7 shortly stalked; 8 anastomosing with the cell to well beyond middle.

5975. Pseudosterrha oranaria.

Chesias oranaria, Lucas, Expl. Algeria, p. 393, pl. 4. f. 4 (1848); Oberth. Ét. Ent. xix. p. 38, pl. 6. ff. 40, 41; Staud. Cat. Lep. pal. p. 373.

♀. Head and thorax fuscous brown mixed with grey-white; abdomen ochreous, whitish irrorated with fuscous brown at base, extremity, and on ventral surface. Fore wing brownish ochreous irrorated with black, the veins, discal and submedian folds strongly streaked with white and defined on each side by black to the postmedial line, which is very oblique from costa just before apex to middle of inner margin, white defined on outer side by black

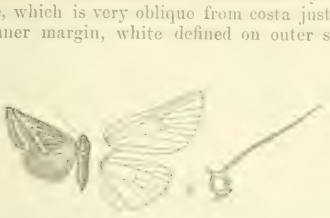

Fig. 174.—*Pseudosterrha oranaria*, ♀. ½.

and on inner side also from submedian fold to inner margin; subterminal line white, oblique, arising from apex; cilia white with fine black lines at base and tips. Hind wing grey suffused with fuscous black; the cilia white with black line near base and some black scales at tips; the underside white irrorated with black-brown, a diffused black discoidal spot and patch on termen below apex.

♂. Larger: fore wing sometimes tinged with rufous, the streaks on the veins less distinct, the postmedial line finer and slightly incurved below vein 4, the subterminal line less distinct: hind wing paler.

Hab. Algeria (*Mrs. Nicholl*), 2 ♀, Oran. *Exp.* ♂ 30, ♀ 24 millim.

Genus GYROHYPSOMA.

	Type
Gyrohypsoma, Staud. Stett. Ent. Zeit. xlix. p. 47 (1888)	*sterrha*.

Proboscis fully developed; palpi obliquely upturned, slender, the 2nd joint reaching about to middle of frons, the 3rd short; frons with small rounded corneous process at middle with raised edges, a corneous plate below it; eyes large, round; antennæ of female ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with depressed crest; tibiæ slightly fringed with hair, the fore tibia with claw at extremity on inner side; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5976. Gyrohypsoma sterrha.

Gyrohypsoma sterrha, Staud. Stett. Ent. Zeit. xlix. p. 47 (1888); id. Cat Lep. pal. p. 233.

♀. Head pink; thorax yellowish suffused with pink; pectus and legs whitish, the fore legs and tibiæ tinged with pink; abdomen olive ochreous, the ventral surface white except at extremity. Fore wing olive ochreous slightly irrorated with white, the costa

Fig. 175.—*Gyrohypsoma sterrha*, ♀. ½.

area pink; orbicular represented by a small white spot, the reniform defined by slight white points; cilia pink. Hind wing ochreous suffused with brown, the cilia pink; the underside whitish, the costa tinged with pink.

Hab. W. Turkestan, Ferghana, Aulic Ata, 1 ♀; E. Turkestan Ili. *Exp.* 24 millim.

Genus CERATHOSIA.

	Type.
Cerathosia, Smith, Ent. Am. iii. p. 79 (1887)..... ...	*tricolora*

Proboscis aborted, small; palpi porrect, not extending beyond the frons and slightly fringed with scales below; frons with corneous prominence with raised edges and hollowed out corneous process in centre; a curved corneous plate below it; eyes large, round; antennæ of male ciliated; thorax smoothly clothed almost entirely with scales and without crests; tibiæ smoothly scaled the fore tibiæ with curved claw on outer side; build slender; abdomen smoothly scaled and without crests. Fore wing long and narrow, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

A. Fore wing without orange apical patch ..... *tricolora*.
B. Fore wing with orange apical patch..... *idella*.

5977. Cerathosia tricolora.

Cerathosia tricolor, Smith, Ent. Am. iii. p. 79 (1887); Dyar, Cat. Lep. N. Am. p. 217.

♂. Head and thorax white, the head with two black spots between antennæ; the tegulæ and patagia with two black spots at

base and some scales towards extremities, the pro-, meso-, and metathorax with paired black points; fore coxæ and tibiæ with black marks, the mid and hind tibiæ with black marks at extremities, the tarsi black ringed with white; abdomen pale yellow, the central surface white except at extremity. Fore wing silvery white with numerous small black spots, some forming an antemedial series bent outward above inner margin, others a postmedial

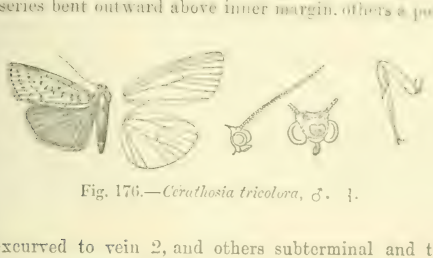

Fig. 176.—*Cerathosia tricolora*, ♂. ½.

series excurved to vein 2, and others subterminal and terminal series. Hind wing pale yellow.

Hab. U.S.A., Texas, Shovel Mts., 3 ♂. *Exp.* 36 millim.

Larva. Hulst, Ent. Am. v. p. 118.

Young; semiloopers, prolegs with the 1st two pairs aborted; dark brown or blackish, each somite with 14 to 20 piliferous warts each with one erect hair or two divergent ones, the setæ stiff, bulbous tips; head dark, the frons triangular, the apex indented, the ocelli with 8 to 10 hairs.

*5978. Cerathosia? idella. (Plate CLXVIII. fig. 15.)

Cerathosia idella, Barnes, Can. Ent. xxxvii. p. 193 (1905).

Head and thorax white with black spots on shoulders, middle of collagia, and dorsum of thorax, the metathorax with band, these markings with blue scales mixed; palpi black at tips; antennæ blackish; fore tibiæ black above, the tarsi black ringed with white; abdomen orange above, white below. Fore wing white with small orange patch at apex and with black dots and bars, six spots on costa, a round spot in cell followed by four transverse bars, the 3d connected with a spot on costa; a short streak on base of inner margin, followed by five transverse bars from median nervure to inner margin, the 1st not quite reaching it, the 3rd and 5th narrower and sometimes broken in the male; three or four subterminal spots in male, in female a complete series; a terminal series of black blotches, in the male forming quadrate patches at apex, middle, and tornus, the cilia black at these points. Hind wing orange, slightly darker towards termen.

Hab. U.S.A., Arizona, Pima Co. *Exp.* 25 millim. This species unknown to me, figured from a drawing from type in Coll.

W. Barnes; the palpi are said to be upturned to middle of from which has a rounded prominence with corneous plate below it tibiæ not spined; hind wing with veins 3, 4 stalked.

Genus **ACANTHOFRONTIA**, nov.

Type, *A. lithosiana*.

Proboscis aborted, minute; palpi very short, porrect, slightly fringed with hair below; frons with corneous prominence with raised walls, and long spin from lower edge, and corneous plate below it; eyes large, round; antennæ c male almost simple; thorax smoothly clothed with scales and hair mixed an without crests; build slender; tibiæ smoothly scaled, the fore tibia with mo or less developed curved claw at extremity on outer side; abdomen witho crests. Fore wing long and narrow, the apex somewhat produced, the termc evenly curved and not crenulate; the cell long; veins 3 and 5 from near angl of cell, or 4, 5 stalked; 6 from upper angle or stalked with 7, 8, 9; 7 fro beyond 9; 10, 11 from cell. Hind wing with veins 3, 4 strongly stalked 5 almost obsolete from middle of discocellulars; 6, 7 strongly stalked 8 anastomosing with the cell to middle.

5979. Acanthofrontia lithosiana, n. sp.

♂. Head and tegulæ yellowish white; a blackish band betwe antennæ, which are black; thorax greyish white; pectus and le yellow and white, the legs fuscous above; abdomen orange band with fuscous. Fore wing with the costal area to median nervu and vein 6 white, the rest of wing grey; a black fascia on cost

Fig. 177.—*Acanthofrontia lithosiana*, ♂. ½.

from middle to apex; a small semicircular black mark usua present in cell above origin of vein 2 and two on discocellul nearly forming a small annulus; the inner margin and cilia yello Hind wing white; the costal area yellow and fuscous; ci yellowish.

Hab. Br. E. Africa, Athi-ya-Mawe (*Betton*), 3 ♂ type. *E* 30 millim.

Genus **MONOCYMIA**, nov.

Type, *M. hermina*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to mi of frons and smoothly scaled, the 3rd moderate; frons smooth; eyes la round; antennæ of female minutely ciliated; thorax clothed with hair scales mixed, the prothorax without crest, the metathorax with depre crest; tibiæ moderately fringed with hair; abdomen without crests. h

wing with the apex rather produced, the termen obliquely curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a small areole, 10 being approximated to 8 at its extremity and 7 from beyond the extremity; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from well above angle; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5980. Monocymia harmina.

Acontia harmina, Schaus, Trans. Am. Ent. Soc. xxx. p. 163 (1904).

♀. Head and thorax ochreous tinged with rufous; pectus and legs ochreous white tinged with brown, the tarsi ringed with white; abdomen red-brown, the ventral surface ochreous white. Fore wing greyish white suffused with olive-brown and rufous and slightly irrorated in parts with black; antemedial line faintly double filled in with whitish, angled outwards on median nervure, then oblique; postmedial line whitish with a slight brown line on

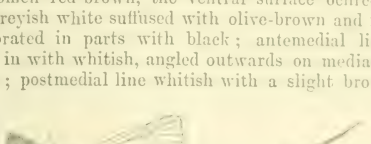

Fig. 178.—*Monocymia harmina*, ♀. ½.

its inner edge, obliquely excurved to vein 4, then obliquely incurved, the area beyond it more cupreous red; traces of a rufous subterminal line; a terminal series of rufous striæ; cilia whitish at tips. Hind wing dark brown with a cupreous gloss; cilia whitish with a brown line near base; the underside bluish white irrorated and suffused with fuscous, a blackish discoidal lunule and indistinct diffused curved postmedial line.

Hab. Brazil, Castro Paraña, type ♀ in U.S. Nat. Mus.; Paraguay, Sapucay (*Foster*), 2 ♀. *Exp.* 26 millim.

Genus DIASTEMA.

	Type.
Diastema, Guen. Noct. ii. p. 317 (1852)	*litigiosa*.
Nyssius, Wlk. xii. 729 (1857)	*cognata*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and moderately fringed with scales in front, the 3rd moderate; frons with small rounded prominence with corneous plate below it; eyes large, round; antennæ of male ciliated; pro- and metathorax with small spreading crests; build slender; tibiæ moderately fringed with hair; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and slightly crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing suffused with fulvous ..... *tigris.*
B. Fore wing purplish white suffused in parts with brown ..... *morata.*

5981. Diastema tigris.

Diastema tigris, Guen. Noct. ii. p. 317, pl. 15. f. 2 (1852).
Nipista lineata, Wlk. xii. 800 (1857).

Head, thorax, and abdomen white tinged with fulvous; tarsi brown ringed with white. Fore wing white suffused in parts with fulvous especially on terminal area; subbasal line fulvous, from costa to submedian fold, with blood-red spots before it below costa and cell; antemedial line double, fulvous, somewhat oblique and nearly straight from costa to vein 1 where it is angled inwards with blood-red spots before it below costa, in cell, and above and below submedian fold; a quadrate blood-red spot in end of cell and a small spot below end of cell, closely followed by the curved medial line forming a spot at costa; postmedial line double with

Fig. 179.—*Diastema tigris*, ♂. ½.

another indistinct double line before it, slightly bent outwards below costa, somewhat excurved to vein 3, then slightly incurved; some white points with rufous streaks between them beyond it on costa; subterminal line whitish with blood-red suffusion before it except at costa and towards inner margin, excurved below vein 7 and at middle; a terminal series of minute red points slightly defined by whitish on inner side. Hind wing yellowish white, the termen tinged with fulvous except towards tornus.

Hab. Mexico, Presidio (*Forrer*), 2 ♂, Guerrero (*H. H. Smith*), 1 ♂, 1 ♀, Tabasco (*H. H. Smith*), 2 ♂; Costa Rica, Candelaria Mts. (*Underwood*), 1 ♀; Guatemala, S. Geronimo (*Champion*), 2 ♂, 2 ♀; Panama (*J. J. Walker*), 1 ♂, Chiriqui (*Ribbe*), 1 ♂, Godman-Salvin Coll., La Chorrera (*Dolby-Tyler*), 1 ♀; Grenada, 3 ♂; Colombia, Sta. Marta (*Bouchard*), 1 ♂; Venezuela (*Dyson*), 1 ♂, 2 ♀ type *lineata*. *Exp.* 28–36 millim.

5982. Diastema morata. (Plate CLXVIII. fig. 16.)

Chytonix morata, Schaus, Trans. Am. Ent. Soc. xxi. p. 225 (1894).

♂. Head, thorax, and abdomen white slightly tinged with ochreous brown. Fore wing white with a purplish tinge, the costal area and the terminal area to vein 3 suffused with cupreous

rown; subbasal line represented by a white striga from costa; antemedial line indistinct, white, oblique, nearly straight, confluent with the orbicular, which is purplish white defined on outer side by an oblique white bar connected with lower extremity of reniform, which is brownish with some white in centre and with white annulus, slightly angled inwards on median nervure to the orbicular, the cell between the stigmata suffused with blackish extending to costa; postmedial line indistinctly double filled in with white, bent outwards below costa, then minutely dentate, oblique and obsolescent below vein 4, some white points beyond it on costa; subterminal line indistinct, whitish, defined on inner side by slight dentate black marks except on inner half where it is almost obsolete, slightly angled outwards at vein 7 and excurved at middle; a terminal series of slight black points from apex to vein 3. Hind wing whitish suffused with ochreous brown; cilia yellowish white; the underside ochreous white with faint diffused brown subterminal shade.

Hab. Mexico, Coatepec (*Schaus*), 1 ♂. *Exp.* 28 millim.

Genus CHOBATA.

Type.

Chobata, Wlk. xxx. 887 (1857).

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and slenderly scaled, the 3rd moderate; frons with slight rounded prominence with corneous plate below it; eyes large, round; antennæ of male serrate and fasciculate; thorax clothed chiefly with scales, the pro- and metathorax with spreading crests; tibiæ smoothly scaled; abdomen with small dorsal crest at base only. Fore wing rather narrow with the apex somewhat produced, the termen obliquely curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5983. Chobata discalis.

Chobata discalis, Wlk. xii. 838 (1857).
Erastria concludens, Wlk. xxxiii. 791 (1865).

Head and tegulæ white suffused with rufous, the latter with dark bars near tips; palpi white in front, rufous at sides; thorax white with a few brown scales; the fore tibiæ with dark band at extremity; abdomen white tinged with rufous. Fore wing white suffused with golden brown and tinged with cupreous except at base, irrorated with a few black scales; subbasal line slight, defined by white on outer side, oblique, from costa to vein 1, with small black marks beyond it below costa and cell; antemedial line double and filled in with white, oblique and straight from costa to vein 1, an oblique triangular mark beyond it, representing the orbicular, from costa to median nervure on which there is a white

fascia from it to the reniform which has a cupreous centre and whitish annulus, rather constricted below and with an oblique white shade from it to costa towards apex, a U-shaped dark line defining the orbicular and reniform in cell; postmedial line white, slight and bent outwards below costa, oblique below the white shade, an oblique white streak from it to termen above tornus in submedian interspace; subterminal line represented by a white striga from

Fig. 180.—*Chobata discalis*, ♂. 3.

costa, then only defined by a slight dark shade on inner side, angled inwards in discal fold; a white terminal line with blackish points and striæ on termen; cilia white with a series of brownish spots. Hind wing whitish tinged and the terminal area suffused with cupreous brown; cilia white tinged with cupreous brown at base from apex to vein 2: the underside whitish, the costal area tinged with brown.

Hab. CUBA, Santiago (*Schaus*), 5 ♂, 4 ♀; HAITI (*Tweedie*), 2 ♂, 1 ♀, type and type *concludens*. *Exp.* 18–26 millim.

Genus **LOPHORACHE**, nov.

Type, *L. fulvirufa*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching about to middle of frons and moderately fringed with scales, the 3rd short, porrect; frons with rounded prominence with corneous plate below it; eyes large, round; antennæ of male minutely ciliated; thorax clothed with hair and scales mixed, the prothorax without crest, the metathorax with decumbent crest; tibiæ smoothly scaled; abdomen with dorsal crest at base only. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the basal area olive-yellow, the terminal area rufous ..... *fulvirufa*.
B. Fore wing brownish ochreous, the terminal area dark brown ..... *castrotoides*.

5984. Lophorache fulvirufa, n. sp.

♀. Head and thorax grey-brown, the patagia yellowish tinged with rufous, pectus and legs ochreous white, the tarsi brownish

ringed with white; abdomen grey-brown, the basal crest rufous, the ventral surface ochreous white. Fore wing with the basal area olive-yellow extending on costa to beyond middle, on inner margin to near middle, the costal edge greyish, the terminal half red-brown suffused with purplish grey, its inner edge oblique; postmedial line indistinct, dark, excurved to vein 4, then incurved; subterminal line represented by a faint series of dark points on costal half, incurved below vein 3 and with rufous and yellowish patch beyond it in submedian interspace; a terminal series of minute dark points with whitish scales before them; cilia brownish

Fig. 181.—*Lophorache fulvirufa*, ♀. ½.

grey. Hind wing dark greyish brown, the cilia brownish grey; the underside brownish grey slightly irrorated with dark brown, an indistinct discoidal spot and curved postmedial line.

♂. Head, thorax, and abdomen ochreous tinged with rufous; fore wing with the basal area ochreous irrorated with a few rufous scales, a slight subbasal line from costa to median nervure, an oblique antemedial brown bar from costa to the brown area with an ochreous spot beyond it on costa, the patch beyond the subterminal line olive-brown defined on outer side by ochreous whitish, a black striga beyond postmedial line below costa, an oblique blackish streak from apex and the terminal series of points more prominent; hind wing ochreous, the terminal area suffused with brown; the underside ochreous with slight discoidal point, curved postmedial line and some brown at apex.

Hab. Br. E. Africa, Teita (*Jackson*), 1 ♀, Taveta (*Rogers*), 1 ♂ type. *Exp.* 28 millim.

5985. **Lophorache eustrotiodes**, n. sp. (Plate CLXVIII. fig. 17.)

♀. Head and thorax ochreous; antennæ ringed with brown; pectus whitish; the tarsi brown ringed with white; abdomen brown with ochreous segmental lines, the ventral surface ochreous. Fore wing ochreous slightly tinged with rufous, the terminal area suffused with brown with an ochreous patch at apex; the basal half of costa with slight dark striæ; obliquely placed small dark subbasal spots below the cell and above inner margin; traces of an antemedial line on inner area; a black discoidal bar with a faint striga beyond it and traces of a double line from cell to inner margin above which it is excurved; postmedial line with black

point at costa, then faint, excurved beyond the cell and oblique to inner margin; traces of a pale subterminal line excurved below vein 7 and at middle; a terminal series of black points. Hind wing greyish suffused with brown, the cilia with a fine pale line at base; the underside whitish thickly irrorated with brown, the costa tinged with ochreous.

Hab. Madras, Gooty (*Campbell*), 1 ♀ type. *Exp.* 20 millim.

Genus THYATIRINA, nov.

Type, *T. achatina*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to middle of frons and moderately scaled, the 3rd short; frons with rounded prominence produced to a beak-like point at extremity, a corneous plate below it; eyes large, round; antennæ laminate and almost simple; thorax clothed chiefly with scales, the prothorax without crest, the metathorax with decumbent crest; tibiæ moderately fringed with hair; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate, the inner margin lobed before middle; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5986. Thyatirina achatina.

Thyatira achatina, Weym. Berl. Ent. Zeit. xli. p. 90, pl. 8. f. 3 (1896).

♂. Head, thorax, and abdomen ochreous suffused with rufous and irrorated with a few dark brown scales, the head somewhat darker; pectus, legs, and ventral surface of abdomen ochreous, the fore tibiæ and tarsi brown, the latter slightly ringed with white. Fore wing ochreous suffused with rufous and irrorated with a few dark scales; the basal area with pale chocolate-brown patch in and below cell, whitish towards inner margin; antemedial line whitish

Fig. 182.—*Thyatirina achatina*, ♂. ½.

defined by dark brown on outer side, very strongly excurved, obsolescent and angled outwards above inner margin; medial area chocolate red-brown becoming whitish with prominent dark irroration towards inner margin; a faint sinuous dark medial line; postmedial line arising from middle of costa, white defined on inner side by dark brown, incurved and slightly sinuous from costa to submedian fold where it is angled outwards, then black and incurved, a large rounded olive-brown patch beyond it between

vein 7 and submedian fold extending to the subterminal creamy white line which is very oblique and defined by red-brown towards costa, then excurved to near termen and bent inwards below the olive-brown patch to the postmedial line at submedian fold, its outer edge defined by a very slightly sinuous chocolate-brown line; the narrow terminal area greyish strongly irrorated with blackish. Hind wing white, the veins towards termen and the termen slightly tinged with red-brown; the underside with the apical area irrorated with a few black scales.

♀. Hind wing suffused with red-brown, the cilia whitish; the underside ochreous whitish with slight discoidal point and faint diffused postmedial and subterminal shades.

Hab. Germ. E. Africa, Victoria Nyanza; N. Rhodesia, Katanga Distr. (*Neave*), 1 ♀; Mashonaland, Salisbury (*Marshall*), 1 ♀; Natal, Estcourt (*Hutchinson*), 1 ♂, 2 ♀. *Exp.* 34–36 millim.

Genus EXYRA.

Type.

Exyra, Grote, Check-List Noct. p. 26 (1875)..... *semicrocea*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching to about middle of frons and moderately fringed with hair in front, the 3rd moderate; frons with rather beak-like pointed prominence hidden in the rough hair of frons; eyes large, round; antennæ of male laminate and ciliated; thorax clothed with long rough hair and spatulate scales and without crests; tibiæ fringed with rather long hair; abdomen long and without crests. Fore wing rather long and narrow, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing purplish crimson ..... *rolandiana*.
B. Fore wing black-brown slightly irrorated with orange-red scales ..... —
C. Fore wing yellow with the terminal area black-brown.
  a. Fore wing with antemedial, medial, and postmedial black-brown bands ..... *ridingsi*.
  b. Fore wing without bands, the basal half yellow, the terminal half black-brown ..... *semicrocea*.

5987. Exyra rolandiana. (Plate CLXVIII. fig. 18.)

Exyra rolandiana, Grote, Psyche, ii. p. 38 (1877); id. Ill. Essay, p. 61, pl. 3. f. 35; Smith, Cat. Noct. N. Am. p. 306.

♂. Head and thorax crimson mixed with yellow; pectus and legs brown, the fore tibiæ crimson, the tarsi pale yellow; abdomen brown, the anal tuft tipped with crimson. Fore wing deep purplish crimson slightly irrorated with brown; traces of an antemedial line with a broad yellow band beyond it from middle of cell to inner margin; an elliptical yellow discoidal spot; traces of an oblique line from lower angle of cell to inner margin, with a yellow bar beyond it from sub-

median fold to inner margin; traces of a postmedial line excurved to vein 4, then oblique; traces of a diffused subterminal line; a fine whitish line at base of cilia. Hind wing dark brown, the cilia greyer and faintly tinged with purple.

♀. Fore wing with the terminal half of costa, the terminal area, and cilia greyish brown.

Hab. U.S.A., Eastern, Middle, and Central States, Massachusetts, Newton (*Thaxter*), 2 ♂, 1 ♀ type. *Exp.* ♂ 26, ♀ 22 millim.

*5988. Exyra fax.

Xanthoptera fax, Grote, Trans. Am. Ent. Soc. iv. p. 295 (1873); Smith, Cat. Noct. N. Am. p. 306.

Head and thorax orange-yellow; abdomen brownish black. Fore wing brownish black slightly irrorated with orange-red scales forming two faint patches in cell; cilia tipped with orange-red. Hind wing brownish black.

Hab. U.S.A., Delaware, Georgia. *Exp.* 12 millim. This species is unknown to me.

5989. Exyra ridingsi. (Plate CLXVIII. fig. 19.)

Xanthoptera ridingsii, Riley, Trans. St. Louis Acad. Sci. iii. p. 240, f. 12 (1874); Smith, Cat. Noct. N. Am. p. 306.
Xanthoptera nigrocaput, Morr. Proc. Bost. Soc. N. H. xvii. p. 153 (1874).

♂. Head, tegulæ, and patagia glossy black; palpi with the hair in front of 2nd joint ochreous; thorax ochreous yellow, the pectus in front, fore femora and tibiæ, and the mid and hind tibiæ at extremities fuscous brown; abdomen ochreous tinged with brown. Fore wing with antemedial black-brown quadrate patch from costa to just below cell, a strong obliquely excurved line from its outer edge to inner margin; a broad rather diffused and slightly excurved medial band; postmedial line strong, excurved, slightly defined by ochreous on outer side; terminal area brown. Hind wing glossy brown, the base pale ochreous; faint diffused medial and postmedial brown lines; cilia whitish at tips; the underside whitish suffused with brown, except basal and inner areas.

Hab. U.S.A., Central and Southern States, 1 ♂, Texas. *Exp.* 26 millim.

Larva. Food-plant, *Sarracenia flava*.

5990. Exyra semicrocea.

Xanthoptera semicrocea, Guen. Noct. ii. p. 241 (1852); Smith, Cat. Noct. N. Am. p. 306.
Exyra hubbardiana, Dyar, Proc. Ent. Soc. Wash. vi. p. 59 (1904).

♂. Head, tegulæ, and prothorax glossy black, the palpi with the hair in front of 2nd joint brownish; thorax orange-yellow, the pectus in front, fore femora, and tibiæ on inner side brownish,

mid and hind tibiæ at extremities brownish; abdomen ochreous suffused with fuscous brown. Fore wing with the basal half orange-yellow, its outer edge rather oblique; the terminal half glossy black-brown. Hind wing fuscous brown with a greyish tinge, the base pale ochreous.

Fig. 183.—*Exyra semicrocea*, ♂. ½.

Ab. 1. *hubbardiana*. Fore wing with the terminal area greyish, leaving broad dark medial and subterminal bands.—Florida, de Funiak Springs, bred from *Sarracenia flava*.

Hab. U.S.A., Middle, Central, and Southern States, 1 ♂. *Exp.* 32 millim.

Larva. Riley, Can. Ent. vi. p. 208, fig. 25; and Trans. St. Louis Ac. Sci. iii. p. 236, fig. 10.

White banded with purple or lake-red and with series of tubercles more prominent on the 1st four abdominal somites. The larva feeds in the cup of *Sarracenia variolaris* and *S. flava*, spinning a web over the surface and drawing the lips together; it forms a slight cocoon in the exuviæ which collect in the bottom of the cup. 4–5.

Genus PHŒNICOPHANTA, nov.

Type, *P. flavifera*.

Proboscis aborted, small; palpi upturned, the 2nd joint reaching to about middle of frons and moderately scaled, the 3rd short; frons with large rounded prominence, somewhat truncate below; eyes large, round; antennæ of male somewhat laminate and minutely ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7, 8, 10 stalked, 9 absent; 11 from cell; male with an elongate groove on upperside above base of vein 6 which is displaced downwards, the subcostal neuration distorted. Hind wing with veins 3, 4 from angle of cell; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

5991. Phœnicophanta flavifera, n. sp.

Head and thorax bright yellow; crimson bars above frons and between antennæ which are rufous, the tegulæ at base and mesothorax with crimson bars; fore legs blackish in front, the coxæ tinged with crimson, the tarsi with slight pale rings; abdomen yellow tinged with rufous except at base. Fore wing bright yellow, the costal area crimson, leaving a small yellow spot at base,

the medial and terminal areas purplish crimson; an almost medial deep red line defined on inner side by yellow on the crimson costal area, oblique towards costa, angled slightly outwards below costa, in cell, and submedian fold and inwards on vein 1; postmedial line deep red with a yellow band on its outer edge, oblique towards costa, angled inwards at discal fold, slightly incurved below vein 4

Fig. 184.—*Phænicophanta flavifera*, ♂. ⅔.

and excurved at vein 1; a fine dark terminal line; cilia greyish. Hind wing whitish tinged with brown, an indistinct curved postmedial line and fine dark terminal line; the underside white irrorated with brown, a slight discoidal striga and indistinct curved postmedial line.

Hab. Argentina, Tucuman, Los Vasquez (*Dinelly*), 7 ♂, 1 ♀ type. *Exp.* 16–18 millim.

Genus XANTHOPTERA.

	Type.
Xanthoptera, Guen. Noct. ii. p. 240 (1852)	*botyoides.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to vertex of head and moderately scaled, the 3rd short; frons with rounded prominence produced to a slight ridge in front; eyes large, round; antennæ of male minutely ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen without crests. Fore wing with the apex rectangular, the termen evenly curved, crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with oblique dark streak from apex meeting the angle of postmedial line.
  a. Fore wing with dark streaks on the veins of medial area.
    *a*¹. Fore wing whitish, the veins streaked with rufous. *rufescens.*
    *b*¹. Fore wing yellow, the veins streaked with brown.. *furcata.*
  b. Fore wing without dark streaks on the veins of medial area ..... *obliquata.*
B. Fore wing without oblique dark streak from apex.
  a. Fore wing with oblique diffused rufous postmedial line arising below apex ..... *aurnda.*
  b. Fore wing without oblique diffused rufous postmedial line.
    *a*¹. Fore wing with the terminal area suffused with rufous ..... *botyoides.*

b. Fore wing with the terminal area not suffused with rufous.
*a*². Fore wing with more or less distinct postmedial line bent outwards below costa and oblique below vein 5 ..... *auriflora*.
*b*². Fore wing without postmedial line ..... *nigrofasciata*.

5992. **Xanthoptera rufescens**, n. sp. (Plate CLXVIII. fig. 20.)

♂. Head and thorax ochreous white mixed with rufous; abdomen white tinged with rufous and slightly irrorated with brown. Fore wing white irrorated with rufous, the costal and terminal areas suffused with rufous except at apex, the median nervure, the veins arising from it, and the discal and submedian folds streaked with rufous to the postmedial line; antemedial line rufous, oblique from costa to discal fold and very oblique inwardly below submedian fold; a slight dark discoidal point; postmedial line rufous, very oblique from costa to vein 6 where it is met by a rather diffused oblique fascia from termen below apex, then oblique to middle of inner margin, some slight pale points beyond it on costa; an ill-defined very slightly waved rufous subterminal line from the angle of postmedial line to inner margin, excurved at middle; a brown terminal line; cilia greyish and brown, with a dark line through them. Hind wing ochreous white; slight brown postmedial points on veins 4, 3, 2; the veins towards termen and the termen from apex to vein 2 tinged with brown; a fine brown terminal line; cilia white tinged with rufous from apex to vein 2; the underside with the costal area irrorated with red-brown, a slight discoidal point and curved postmedial line with points on the veins.

♀. Hind wing uniformly suffused with brown.

Hab. Trinidad, 1 ♂; Colombia, Magdalena, Minca: Brazil, Bahia (*Lacerda*), 1 ♂ type. *Exp.* 24 millim.

5993. **Xanthoptera furcata.** (Plate CLXVIII. fig. 21.)

Xanthoptera furcata, Wlk. xii. 819 (1857).

Head and thorax pale ochreous yellow; palpi at sides and antennæ red-brown; legs tinged with brown; abdomen ochreous white slightly irrorated with brown. Fore wing brassy yellow slightly irrorated with brown; the costal edge red-brown; the median nervure and veins arising from it slightly streaked with brown; antemedial line fine, brown, strongly angled outwards on median nervure and very oblique towards costa and inner margin; faint traces of the orbicular and reniform defined by rufous, the former round; postmedial line brown, very oblique from costa to vein 6, where it is acutely angled outwards and met by an oblique brown streak from termen just below apex, then inwardly

oblique; traces of a brown subterminal line from the angle of postmedial line to inner margin, excurved at middle; a brown terminal line; cilia greyish and brown. Hind wing white, the terminal area irrorated with brown; a fine brown terminal line; the underside sparsely irrorated with brown.

Hab. Brazil, Organ Mts., Tijuca (*Wagner*), 2 ♂, 2 ♀. *Exp.* 22–24 millim.

5994. Xanthoptera obliquata. (Plate CLXVIII. fig. 22.)

Xanthoptera obliquata, Herr.-Schäff. Corresp.-blatt. zool.-min. Ver. Regensb. xxii. p. 152 (1868).

♂. Head and thorax ochreous white; palpi black-brown; frons with lateral blackish bars; antennæ blackish; pectus and legs ochreous white mixed with brown, the tarsi blackish with pale rings; abdomen ochreous irrorated with brown. Fore wing ochreous yellow tinged with rufous; the costal edge blackish to near apex; claviform, orbicular, and reniform represented by slight black points; a rather diffused oblique rufous line from costa just before apex to inner margin beyond middle; traces of a subterminal line from discal fold to inner margin; a terminal series of black points on a fine rufous line; cilia purplish grey. Hind wing purplish grey, whitish towards base and inner margin; the underside ochreous white irrorated with brown, a brown discoidal spot.

♀. Fore wing ochreous whitish, the markings red-brown and more distinct; some red-brown suffusion in end of cell; postmedial line angled outwards at vein 6 to join the oblique fascia from before apex.

Hab. Cuba, Santiago (*Schaus*), 1 ♂, 5 ♀. *Exp.* 16 millim.

5995. Xanthoptera auruda. (Plate CLXVIII. fig. 23.)

Xanthoptera auruda, Schaus, J. N.Y. Ent. Soc. vi. p. 118 (1908).

Head and thorax bright yellow; antennæ black; pectus, legs, and abdomen ochreous irrorated with fuscous. Fore wing bright yellow, the costal edge brownish; claviform, orbicular, and reniform represented by slight black points; an oblique rather diffused rufous line from below costa towards apex to middle of vein 1; subterminal line indicated by very slight diffused dark scaling; a fine terminal black line not quite reaching apex and tornus; cilia leaden fuscous. Hind wing ochreous white tinged with brown; a fine brown terminal line; the underside ochreous irrorated with brown, a slight discoidal point and diffused oblique postmedial line.

Hab. Colombia (*Nolcken*), 1 ♂; Brazil, Rio Janeiro (*Wilson*), 1 ♀, Castro Paraña (*D. Jones*), 1 ♂. *Exp.* 20–24 millim.

5996. Xanthoptera botyoides.

Xanthoptera botyoides, Guen. Noct. ii. p. 240 (1852).
Xanthoptera alboflava, Wlk. Trans. Ent. Soc. (3) i. p. 92 (1862).
Marimatha dinumeratalis, Wlk. xxxiv. 1204 (1865)?; Druce, Biol. Centr.-Am., Het. i. p. 453.
Xanthoptera nigrofimbria, Druce, Biol. Centr.-Am., Het. i. p. 316 (part.), nec Guen.

Head ochreous white mixed with red-brown; palpi red-brown, the extremities of 2nd and 3rd joints whitish; thorax bright yellow; pectus and legs ochreous white mixed with red-brown; abdomen ochreous yellow. Fore wing bright yellow; claviform and orbicular represented by black points; reniform a black point followed by a rounded rufous spot with some whitish in centre; traces of a punctiform rufous postmedial line, oblique to vein 6 and

Fig. 185.—*Xanthoptera botyoides*, ♂. ½.

below vein 4; a terminal rufous shade narrowing to points below apex and above tornus; a terminal series of minute black-brown lunules; cilia red-brown mixed with some whitish. Hind wing white, the terminal area suffused with red-brown; a fine brown terminal line; cilia whitish mixed with brown and with brown line through them; the underside yellowish white irrorated with red-brown, a brown discoidal point.

Hab. Mexico, Tabasco (*H. H. Smith*), 2 ♂, 1 ♀, Godman-Salvin Coll.; Honduras (*Dyson*), 1 ♀ type *dinumeratalis*, type † ♂ *alboflava* in Mus. Oxon.; Trinidad (*Kaye*), 6 ♂, 3 ♀; Br. Guiana (*Rodway*), 1 ♂, Rockstone (*Kaye*), 2 ♂; Brazil, Amazons, Parantins (*Austen*), 1 ♂, Organ Mts., Tijuca (*Wagner*), 2 ♀. Exp. 18–20 millim.

5997. Xanthoptera aurifera. (Plate CLXVIII. fig. 24.)

Xanthoptera aurifera, Wlk. xii. 819 (1857).
Xanthoptera nigrofimbria, Druce, Biol. Centr.-Am., Het. i. p. 316 (part.), nec Guen.
Xanthoptera tripuncta, Möschl. Abh. Senck. Ges. xvi. p. 158 (1890).

Head and thorax pale ochreous yellow; palpi blackish, pale at tips; frons blackish at sides; antennæ blackish; pectus, legs, and abdomen pale ochreous irrorated with brown. Fore wing pale

ochreous yellow; claviform, orbicular, and reniform represented by slight black points; a more or less prominent brown postmedial line, oblique from costa to vein 6 and below vein 5 and slightly sinuous; a punctiform blackish terminal line; cilia fuscous mixed with grey. Hind wing whitish tinged with purplish brown, the basal and inner areas paler; a fine brown terminal line; cilia whitish; the underside ochreous white irrorated with brown, a brown discoidal spot and rather diffused curved postmedial line.

Ab. 1. Fore wing with some red-brown suffusion below and beyond the cell from origin of vein 2 to postmedial line.

Hab. Mexico, Presidio (*Forrer*), 1 ♂, 1 ♀, Atoyac (*Schumann*), 1 ♂; Guatemala, S. Geronimo (*Champion*), 4 ♂, 3 ♀; Costa Rica, Candelaria Mts. (*Underwood*), 1 ♂; Panama, Caldera (*Champion*), 1 ♂, Chiriqui (*Ribbe*), 1 ♂, Godman-Salvin Coll., La Chorerra (*Dolby-Tyler*), 1 ♂; Jamaica (*Kaye*, *Schaus*), 2 ♂, 2 ♀; Cuba, Santiago (*Schaus*), 1 ♂, 4 ♀; Porto Rico; Grenada (*H. H. Smith*), 2 ♂, 1 ♀; Trinidad (*Hart*, *Kaye*), 2 ♂, 1 ♀; Colombia, 1 ♀, Sta. Marta (*Bouchard*), 1 ♀; Brazil. *Exp.* 20–24 millim.

5998. Xanthoptera nigrofimbria. (Plate CLXVIII. fig. 25.)

Xanthoptera nigrofimbria, Guen. Noct. ii. p. 241, pl. 10. f. 12 (1852); Smith, Cat. Noct. N. Am. p. 303; Druce, Biol. Centr.-Am., Het. i. p. 316.

Head and thorax ochreous yellow; palpi, lower part of frons, and antennæ dark red-brown; pectus and legs whitish mixed with red-brown; abdomen ochreous irrorated with brown. Fore wing ochreous yellow; costal edge black towards base; claviform, reniform, and sometimes the orbicular, represented by black points; a fine black terminal line not quite reaching apex or tornus; cilia black-brown tinged with leaden grey. Hind wing whitish suffused with purple-brown, the basal and inner areas rather paler; a fine brown terminal line; cilia white mixed with brown and with brown line through them; the underside whitish thickly irrorated and suffused with dark red-brown.

Hab. U.S.A., New York, Distr. of Columbia, S. Carolina, Bennettsville (*Dudycon*), 1 ♀, Florida, Enterprise, 1 ♂, Missouri, 1 ♂, Texas, 5 ♀; Mexico, Guerrero (*H. H. Smith*), 1 ♂, Godman-Salvin Coll. *Exp.* 24 millim.

Genus ERASTRIA.

	Type.
Erastria, Ochs. Schmett. Eur. iv. p. 92 (1816), non descr.; Treit. Schmett. Eur. v. (3) p. 250 (1826)	*trabealis.*
Emmelia, Hübn. Verz. p. 254 (1827)	*trabealis.*
Agrophila, Boisd. Ind. Meth. p. 175 (1840)	*trabealis.*
Erotyla, Hübn. Tent. ined.	*trabealis.*

Proboscis fully developed; palpi obliquely porrect, extending about the

length of head, the 2nd joint slightly scaled, the 3rd moderate, porrect; frons with rounded prominence with ridge at middle and [illegible] plate [illegible]; eyes large, round; antennæ of male minutely ciliated; thorax clothed entirely with scales and without crests; tibiæ smoothly scaled; abdomen with a minute crest at base. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell or shortly stalked; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

A. Fore wing black-brown, the basal and medial areas with some pale green scales ..... *viridisquama.*
B. Fore wing with yellowish white markings, rarely wholly black.
  a. Fore wing with blackish or olive spots on costa.
    a^1. Fore wing with black-brown fascia on inner margin. *trabealis.*
    b^1. Fore wing without black-brown fascia on inner margin ..... *deleta.*
  b. Fore wing reddish brown with yellowish costal fascia leaving a slight brown streak on costa ..... *fascialis.*

5999. Erastria viridisquama. (Plate CLXVIII. fig. 26.)

Acontia viridisquama, Guen. Noct. ii. p. 219, pl. 10. f. 3 (1852); Staud. Cat. Lep. pal. p. 225.

♂. Head and thorax black-brown mixed with some grey; palpi white at base; tegulæ edged with white; pectus and legs with white mixed, the tarsi ringed with white; abdomen dark brown with slight pale segmental lines, the genital tuft ochreous. Fore wing black-brown, the basal and medial areas clothed with long pale green scales, rather yellower at base: subbasal, antemedial, and postmedial lines represented by white striæ from costa; reniform with indistinct white annulus, elliptical; subterminal line indistinct, greenish, excurved at middle; some greenish scales on termen; cilia black-brown with white patches below apex and at middle. Hind wing black-brown with a cupreous tinge; cilia tipped with white; the underside with the basal half whitish, the terminal half black-brown, a dark discoidal bar and curved postmedial line, a subterminal whitish band from costa to vein 4, and patch in submedian interspace.

Ab. 1. Fore wing nearly uniform black-brown with a few long yellowish scales on basal and medial areas; cilia white-tipped at apex and middle.

Hab. France, E. Pyrenees; Spain, Aragon, Valencia, Canales (*Chapman*), 1 ♂, Castile, Madrid. *Exp.* 24 millim.

6000. Erastria trabealis.

Phalæna trabealis, Scop. Ent. Carn. p. 240 (1763); Staud. Cat. Lep. pal. p. 233.
Pyralis sulphuralis, Linn. Syst. Nat. ed. xii. p. 881 (1767); Steph. Ill. Brit. Ent., Haust. iii. p. 117; Hmpsn. Moths Ind. ii. p. 315.
Noctua arabica, Hüfn. Berl. Mag. iii. p. 412 (1767).
Noctua sulphurea, Schiff. Wien. Verz. p. 93 (1776); Esp. Schmett. iv. pl. 164. f. 6 (1789); Hübn. Eur. Schmett., Noct. f. 291; Dup. Lép. Fr. vii. pt. i. p. 376, pl. 123. f. 3.
Noctua trabeata, Scriba, Beitr. p. 153, pl. 10. f. 8 (1790).
Bombyx lugubris, Fabr. Ent. Syst. iii. 1. p 467 (1793).
Erastria pardalina, Wlk. xxxiii. 794 (1865).
Agrophila nigra, Ersch. Fedtsch. Reis. p. 52, pl. 3. f. 50 (1874).

Head and thorax dark red-brown; palpi yellow except at tips; frons yellowish white; tegulæ yellowish white at base, the patagia and dorsum of thorax with yellow fasciæ; pectus and legs yellowish white mixed with brown, the tarsi banded with brown; abdomen yellowish white dorsally suffused with brown leaving slight pale segmental lines. Fore wing pale yellow; dark red-brown fasciæ along median nervure and vein 1 to postmedial line; antemedial, medial, and postmedial oblique wedge-shaped brown spots on costa and small elliptical spots at middle and end of cell; postmedial line

Fig. 186.—*Erastria trabealis*, ♂. ½.

with small spot at costa, below vein 6 forming an irregular sinuous band, oblique to submedian fold, then bent outwards to inner margin; an oblique subterminal spot from apex, a small spot at middle and geminate spot in submedian interspace; cilia dark brown at apex, middle, and towards tornus. Hind wing cupreous red-brown; cilia white with a brown line near base; the underside white slightly irrorated with brown, a dark discoidal spot, narrow postmedial band, excurved to vein 2, then obsolescent, and a narrow irregular terminal band from below apex to submedian fold.

Ab. 1. *nigra*. Fore wing almost entirely or wholly fuscous black.—W. Turkestan, Ferghana.

Hab. Britain, Leech Coll.; France, Leech Coll. (*Eaton*); Denmark; Germany, Zeller, Frey, & Leech Colls.; Austria; Hungary; Switzerland; Spain; Italy, Courmayeur (*Hampson*), Capri (*C. S. Browne*); Sicily, Zeller Coll.; Dalmatia; Greece, Merlin Coll.; Cyprus (*Glazner*); S. Sweden; Russia, Livonia; Armenia; Asia Minor; Syria, Leech Coll., Beyrout (*Jessop*); Mesopotamia; Persia;

W. Turkestan, Sarawschan, Ferghana, Issyk-Kul; W. Siberia, Altai; E. Turkestan, Ili; E. Siberia, Ussuri; Japan, Hakodaté (*Pryer*), 1 ♂, 2 ♀, Oiwake (*Pryer*), 1 ♀, Tokio (*Maries*), 2 ♀, Yokohama (*Jonas, Pryer*), 3 ♀; Corea, Gensan (*Ito, Leech*), 1 ♂, 1 ♀; N. China, Pekin, 1 ♂; Afghanistan, Kandahar (*Swinhoe*), 1 ♀; Beloochistan, Quetta (*Marray*), 2 ♂; Mauritius (*Boh.*), 1 ♂ type *pardalina*. *Exp.* 22–28 millim.

Larva. Meyr. Brit. Lep. p. 167; Barrett, Lep. Brit. vi. p. 190, pl. 248. f. 1.

Reddish brown; dorsal line darker, pale-edged; subbasal line faintly darker: spiracular line broad, pale yellow outlining a fine brown line; 1st two pairs of prolegs absent. Food-plant: *Convolvulus arvensis*. 7–9.

6001. Erastria deleta.

Agrophila deleta, Staud. Stett. Ent. Zeit. xxxviii. p. 190 (1877); Oberth. Ét. Ent. vi. p. 89, pl. 3. f. 5; Staud. Cat. Lep. pal. p. 253.
Agrophila flavonitens, Aust. Le Nat. i. p. 156 (1880); Oberth. Ét. Ent. vi. p. 89, pl. 3. f. 4.
Emmelia algira, Oberth. Ét. Ent. vi. p. 90, pl. 2. f. 2 (1881).

(*algira*). Head and thorax olive-ochreous; tegulæ with black patches; vertex of thorax suffused with black; tarsi brownish with pale rings; abdomen brownish ochreous. Fore wing olive-ochreous; antemedial, medial, and postmedial black spots on costa; orbicular and reniform usually present, small, round, black; a black fascia below the cell from base to medial or postmedial lines; a more or less developed black fascia on basal part of inner margin and lines at the antemedial and medial lines, which are very faint, olive; postmedial line black, from vein 6 to inner margin, expanding on inner side into black patches at discal and submedian folds, incurved below vein 4; faint traces of a pale sinuous subterminal line; cilia black with more or less ochreous below apex. Hind wing ochreous suffused with fuscous brown; cilia ochreous with a brown line near base; the underside ochreous.

Ab. 1. *deleta*. Fore wing with the black markings replaced by faint brownish markings except the black postmedial line, which is slight and more or less obsolete.

Ab. 2. *flavonitens*. Fore wing without any black markings; rather yellow with the markings very faint olive.

Hab. Algeria, Biskra (*Eaton*), 1 ♂. *Exp.* 22–24 millim. The three forms were all taken together by Mr. L. W. Rothschild.

6002. Erastria fascialis. (Plate CLXVIII. fig. 27.)

Tarache fascialis, Hmpsn. Moths Ind. ii. p. 315 (1894).

Head and thorax red-brown with a greyish tinge; palpi white except at tips; frons whitish; patagia with yellow fascia on outer

edge ; pectus and legs white tinged with red-brown, the tarsi brown ringed with white ; abdomen pale rufous with white segmental lines, the ventral surface white. Fore wing rufous with a slight greyish tinge ; a pale yellow fascia on costal area leaving some rufous on the costa, narrowing to base and terminating in a point before apex, expanding in end of cell, enclosing a rufous point representing the orbicular and emitting a spur below the round rufous reniform ; a yellow fascia on basal half of vein 1 ; an indistinct oblique purplish grey postmedial band from vein 6 to inner margin ; a yellow line just before termen not reaching apex or tornus. Hind wing red-brown ; cilia brown at base, yellowish white at tips ; the underside pale yellow slightly tinged with red-brown, the termen red-brown, the cilia white with a slight brown line through them.

Ab. 1. Thorax and fore wing without any yellow.

Hab. Kashmir, Goorais Valley (*Leech*), 5 ♂, 2 ♀ type, Scind Valley (*Leech*), 4 ♂, 1 ♀. *Exp.* 26 millim.

Genus **HELIOCONTIA**, nov.

Type, *H. apicella*.

Proboscis fully developed ; palpi upturned, the 2nd joint reaching to about middle of frons and moderately scaled, the 3rd short ; frons with small rounded prominence with corneous plate below it ; eyes large, round ; antennæ of male minutely ciliated ; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with large tufted crest ; tibiæ smoothly scaled ; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate ; veins 3 and 5 from near angle of cell ; 6 from upper angle ; 7, 8, 9 stalked ; 10, 11 from cell. Hind wing with veins 3, 4 stalked ; 5 almost obsolete from middle of discocellulars ; 6, 7 from upper angle ; 8 anastomosing with the cell to middle.

Sect. I. Fore wing with vein 7 from 8 beyond 9.

A. Fore wing with medial and postmedial white spots on costa ..... *pantherula*.
B. Fore wing without medial and postmedial white spots on costa ..... *apicella*.

6003. Heliocontia pantherula. (Plate CLXVIII. figs. 28 ♂, 29 ♀.)

Emmelia pantherula, Herr.-Schäff. Corresp.-blatt. zool.-min. Ver. Regensb. xxii. p. 151 (1868), ♂.
Emmelia uncinula, Herr.-Schäff. Corresp.-blatt. zool.-min. Ver. Regensb. xxii. p. 151 (1868), ♀.

♂. Head and tegulæ black-brown with a silvery-blue gloss ; thorax deep rufous with a silvery-blue gloss ; palpi rufous ; pectus and legs white mixed with some brown, the tibiæ and tarsi banded with black ; abdomen red-brown with whitish segmental lines, the ventral surface white with black band before the anal tuft which

is ochreous. Fore wing with basal deep chocolate-brown patch, its outer edge oblique sinuous; the antemedial area creamy white; medial area lemon-yellow with a red-brown mark on costa followed by a white patch; postmedial area bright rufous suffused with silvery purple towards its inner edge except on costal area; postmedial line slight, white, sinuous, from lower angle of cell to inner margin; a small white spot on costa towards apex; terminal area yellow except at apex and tornus, interrupted at discal fold by a rufous streak, its inner edge incurved; cilia rufous at middle, yellow towards apex and tornus. Hind wing red-brown, the cilia with fine white line at base and white tips; the underside ochreous white, the costal area and terminal area to vein 2 suffused with brown.

♀. Head and thorax bright rufous; fore wing with the basal patch bright rufous defined by a fine white line on outer side, the rest of wing black-brown tinged with purple-grey, the medial and terminal areas irrorated with large greenish-yellow scales, the medial and postmedial white spots on costa prominent, the postmedial line slight, a fine white line just before termen, cilia rufous with ochreous-white patch below apex and some ochreous white at tornus.

Hab. Cuba, Santiago (*Schaus*), 5 ♂, 5 ♀. *Exp.* 16 millim.

6004. Heliocontia apicella.

Emmelia apicella, Grote, Trans. Am. Ent. Soc. iv. p. 21 (1872); Druce, Biol. Centr.-Am., Het. i. p. 302; Smith, Cat. Noct. N. Am. p. 302.
Agrophila truncatula, Zell. Verh. zool.-bot. Ges. Wien, xxiii. p. 203, pl. 3. f. 1 (1873).
Fruva accepta, H. Edw. Papilio, i. p. 24 (1881).
Agrophila marmorea, Druce, Biol. Centr.-Am., Het. i. p. 302 (part.). nec Butl.

♂. Head and thorax bright rufous; palpi whitish at base, dark brown at tips; antennæ blackish; pectus and legs white, the fore and mid tibiæ banded with fuscous, the tarsi brown ringed with white; abdomen rufous with whitish segmental lines, the ventral surface white. Fore wing lemon-yellow; a rufous patch at base with obliquely curved outer edge; a rufous tinge along terminal

Fig. 187.—*Heliocontia apicella*, ♂. ¾.

half of median nervure and thence in discal fold to termen; patches of rufous on costa beyond middle and at apex; cilia with a blackish-brown patch at middle. Hind wing ochreous white, the costal area towards apex and the terminal area suffused with brown; cilia white with a brown line near base; the underside yellowish white, the costal area and the termen to vein 2 suffused with brown.

♀. Abdomen dark brown; fore wing black-brown suffused with pale greenish yellow; some yellow on outer edge of the rufous basal patch towards costa and an oblique patch at apex; cilia dark brown except at apex; hind wing uniform dark purple-brown.

Ab. 1. ♀. Fore wing with the apical yellow patch replaced by an oblique streak.—Centr. America.

Hab. U.S.A., S. States, N. Carolina, 3 ♂, 6 ♀ type *truncatella*, Florida, Tallahassee, 1 ♂, Texas; Mexico, Vera Cruz (*H. H. Smith*), 1 ♂, Guerrero (*H. H. Smith*), 3 ♂, 1 ♀; Guatemala, S. Geronimo (*Champion*), 3 ♂, 1 ♀, Zapote (*Champion*), 1 ♂, Las Mercedes (*Champion*), 1 ♀; Panama, Chiriqui (*Ribbe, Champion*), 1 ♂, 1 ♀, Godman-Salvin Coll.; Jamaica (*Mrs. Swainson*), 1 ♀, Runaway Bay (*Walsingham*), 1 ♂, Constant Springs (*Walsingham*), 1 ♂; Colombia, Sta. Marta (*Bouchard*), 1 ♂. *Exp.* 18–20 millim.

Larva. Mrs. Swainson, J. N.Y. Ent. Soc. viii. p. 33 (1900).

Brown with five fine pale yellow lines, the sublateral line broader and containing bright orange spots; two black bands on medial segments; head black and white; a semilooper. Food-plant: Yellow Brown-weed; the pupa enclosed in a leaf, brown.

Sect. II. Fore wing with vein 7 from 8 before 9.

A. Fore wing without black spots on costa.
  a. Fore wing with oblique rufous basal patch ..... *lepus*.
  b. Fore wing without oblique rufous basal patch.
    a^1. Fore wing without subterminal white spot on costa.
      a^2. Fore wing with the postmedial line distinct, double..... *pyralidia*.
      b^2. Fore wing with the postmedial line indistinct, single ..... *valeria*.
    b^1. Fore wing with subterminal white spot on costa ... *margana*.
B. Fore wing with antemedial, medial, and postmedial black spots on costa.
  a. Fore wing with the inner medial area blackish ..... *perstructana*.
  b. Fore wing with the inner medial area orange-red ..... *cleta*.

6005. Heliocontia lepus. (Plate CLXVIII. figs. 30 ♂, 31 ♀.)

Agrophila lepus, Guen. Noct. ii. p. 204 (1852).
Aphusia marmorea, Butl. Trans. Ent. Soc. 1879, p. 27; Druce, Biol. Centr.-Am., Het. i. p. 302, ♀.
Spragueia inversa, Schaus, Trans. Am. Ent. Soc. xxx. p. 163 (1904), ♀.
Spragueia taragma, Schaus, Trans. Am. Ent. Soc. xxx. p. 164 (1904), ♂.

♂. Head and thorax bright rufous slightly mixed with ochreous; pectus, legs, and abdomen greyish tinged with rufous. Fore wing with deep rufous patch at base, its outer edge obliquely curved and

defined by pale yellow, the rest of wing bright rufous overlaid by some long yellowish scales and shading to yellow on terminal area except at apex and with oblique diffused yellow patch from middle of costa; traces of a pale postmedial line very strongly incurved from vein 6 to submedian fold, then oblique to tornus; cilia yellow tinged with rufous at apex and towards tornus and with blackish patch just above middle. Hind wing dark reddish brown, the cilia yellowish white with a brown line near base; the underside yellowish grey, the costal area irrorated with brown except towards base, the termen suffused with brown, a brown discoidal spot.

♀. Head, thorax, and abdomen darker; fore wing with the antemedial area darker or blackish, the overlying scales yellowish white; hind wing darker.

Hab. Mexico, Tabasco (*H. H. Smith*), 1 ♂, 1 ♀; Panama, Chiriqui (*Champion*), 1 ♂, 1 ♀, Godman-Salvin Coll.; Venezuela, Aroa, 1 ♀; Fr. Guiana, St. Jean Maroni (*Schaus*), 1 ♂; Brazil, Amazons, R. Jutahi (*Trail*), 1 ♀ type *marmorea*, Espiritu Santo, 1 ♂, 1 ♀, Organ Mts., Tijuca (*Wagner*), 1 ♂, 2 ♀, Rio Janeiro, 1 ♂, 3 ♀, Petropolis (*Doer*), 1 ♂, São Paulo (*D. Jones*), 2 ♂; Argentina, Gran Chaco, Florenzia (*Wagner*), 1 ♂, 1 ♀. *Exp.* 16–20 millim.

*6006. Heliocontia pyralidia. (Plate CLXVIII. fig. 32.)

Tarache pyralidia, Schaus, J. N.Y. Ent. Soc. vi. p. 117 (1898).

♂. Head and tegulæ white suffused with rufous; thorax bright rufous; pectus and legs white, the fore tibiæ and the tarsi rufous ringed with white; abdomen whitish suffused with rufous leaving white segmental lines. Fore wing with the basal area rufous irrorated with white, with a white subbasal patch on costa; antemedial line white, curved, from submedian fold to inner margin; medial area white irrorated with rufous except towards costa, a rufous point on middle of costa; orbicular absent; reniform very indistinctly defined and with rufous lunule in centre; postmedial line slight, white, defined on each side by rufous suffusion, excurved from costa to vein 7, then incurved; terminal area yellow tinged with red; a slight rufous terminal line with some white before it at middle; cilia rufous. Hind wing ochreous white.

Hab. Mexico, Oaxaca (*Schaus*), type †♂ in U.S. Nat. Mus. *Exp.* 22 millim.

6007. Heliocontia valena.

Acontia valena, Druce, Biol. Centr.-Am., Het. p. 307, pl. 28. f. 21 (1889).

♂. Head and thorax red-brown tinged with purplish grey; pectus and legs ochreous white tinged with red-brown; abdomen

red-brown, the ventral surface whitish. Fore wing red-brown suffused with purplish grey on inner half to postmedial line, the terminal area yellowish white tinged with rufous; an elliptical yellowish-white subbasal patch from costa to median nervure; antemedial line very obscure, rufous, oblique to median nervure, then erect; a truncate conical white patch from middle of costa to median nervure; orbicular and reniform very indistinct, silvery grey, small, round; postmedial line with whitish striga from costa, then very indistinct, oblique to submedian fold below orbicular, then outwardly oblique; traces of an oblique whitish subterminal line between veins 6 and 2; a terminal series of slight dark points defined by whitish on inner side. Hind wing whitish, the veins and termen tinged with red-brown; cilia whitish with a brown line through them.

♀. Head, thorax, and fore wing to postmedial line darker and tinged with black-brown.

Hab. Mexico, Vera Cruz (*Rumeli*), 1 ♂; Guatemala, S. Geronimo (*Champion*), 1 ♀ type, Godman-Salvin Coll. *Exp.* ♂ 22, ♀ 24 millim.

6008. **Heliocontia margana.**

Pyralis margana, Fabr. Ent. Syst. iii. 2, p. 257 (1794), ♂.
Grapholita subapicana, Wlk. xxviii. 387 (1863), ♀.
Agrophila rudisana, Wlk. xxxiii. 776 (1865).
Spragueia sordida, Grote, Can. Ent. xiv. p. 217 (1882); Smith, Cat. Noct. N. Am. p. 305.
Spragueia canofusa, Hmpsn. Trans. Ent. Soc. 1898, p. 247, pl. 17. f. 4, ♀.
Spragueia tarasca, Schaus, Trans. Am. Ent. Soc. xxx. p. 164 (1904).

♂. Head and thorax yellow slightly mixed with rufous; palpi white, brown at tips; antennæ brown; pectus and legs white, the fore tibiæ and the tarsi brown ringed with white; abdomen rufous with white segmental lines, the ventral surface white. Fore wing bright rufous, the costal area ochreous yellow slightly irrorated

Fig. 188.—*Heliocontia margana*, ♂. ⅔.

with rufous to beyond middle, extending at base to below the cell; subbasal line represented by a slight rufous spot in cell; a slightly curved yellowish-white antemedial line defined on outer side by a rufous band; orbicular a small round blackish spot slightly defined by white, the reniform a small blackish mark defined by white, its

ower part reduced to a point; an oblique medial brown striga from costa and curved line from cell to inner margin; a small triangular white patch on costa towards apex, the postmedial line arising from it and represented by an oblique black striga to lower part of reniform and an outwardly oblique brown line from just below the cell to inner margin with some greyish suffusion beyond it; a terminal series of black points except towards apex and ornus, defined on inner side by white striæ; cilia red-brown at base, with dark line at middle, the tips white on apical half, blackish on inner half. Hind wing whitish, the veins, costal area, and termen suffused with red-brown; cilia white with a brown line near base; the underside whitish, the costal area suffused with brown, a slight discoidal striga.

♀. Head and thorax dark brown mixed with grey; fore wing dark brown irrorated with grey, a slight white streak on middle of costa and the triangular white patch before apex, the lines and stigmata obscured; hind wing uniformly suffused with dark brown.

Hab. U.S.A., Texas; Bahamas (*Sir G. Carter*), 1 ♂; Jamaica (*Gosse*), 1 ♂, Kingston (*Cockerell*), 2 ♂, 1 ♀, Constant Springs (*Walsingham*), 1 ♂, 2 ♀; Cuba, Santiago (*Schaus*), 4 ♂, 1 ♀; Haiti (*Tweedie*), 3 ♂, 1 ♀, types *subapicana* and *rudisana*; St. Croix (*Hedemann*), 1 ♂; Grenada, Mt. Gay (*H. H. Smith*), 1 ♂, 1 ♀ type *canofusa*; Barbados (*Frampton*), 1 ♂; Panama (*J. J. Walker*), 1 ♀; Colombia, Sta. Marta (*Bouchard*), 2 ♂; Brazil, Bahia (*Oldfield Thomas*), 1 ♂, São Paulo (*D. Jones*), 3 ♀; Paraguay, Sapucay (*Foster*), 1 ♀; Argentina, Goya (*Perrens*), 1 ♂, Sta. Fé (*Wagner*), 1 ♂, Gran Chaco, Florenzia (*Wagner*), 3 ♀. *Exp.* 16–20 millim. Type † *tarasca* in U.S. Nat. Mus.

6009. Heliocontia perstructana.

Agrophila perstructana, Wlk. xxxiii. 774 (1865), ♂.
Agrophila phœnna, Druce, Biol. Centr.-Am., Het. i. p. 303, pl. 28. f. 8 (1889), ♂.
Agrophila mata, Druce, Biol. Centr.-Am., Het. ii. p. 491, pl. 94. f. 27 (1898), ♀.

♂. Head and thorax ochreous suffused with rufous; palpi whitish, the third joint fuscous behind; frons whitish with fuscous bar above; antennæ blackish; meso- and metathorax with black patches; pectus and legs whitish, the tibiæ and tarsi banded black and white; abdomen ochreous white with dorsal brown bands. Fore wing ochreous suffused with rufous except at costa; subbasal line represented by an oblique black striga from costa and spot in cell; a blackish streak above base of inner margin hooked at extremity; antemedial line represented by a black bar from costa and line from cell to inner margin with rufous band before it; orbicular and reniform small, rounded, black defined by yellowish; a medial black spot on costa; the medial area below the cell leaden black

irrorated with ochreous to the slightly curved medial black line from cell to inner margin; a postmedial black spot on costa and an incurved ochreous line from lower angle of cell to inner margin; a leaden-black band tinged with rufous at apex, oblique from apex to vein 6, then bent inwards to reniform, incurved below vein 4 and defining the postmedial line; cilia leaden grey with some black scales at base, the tips white towards apex. Hind wing ochreous white, the veins and terminal area suffused with reddish brown; cilia brown at base, whitish at tips; the underside ochreous white, the costal and terminal areas tinged with brown.

♀. Head and thorax black-brown mixed with olive-yellow; abdomen dorsally dark brown with ochreous-white segmental lines; fore wing black-brown irrorated with olive-yellow scales; antemedial line defined by yellow on inner side; orbicular and reniform obscured; medial, postmedial, and subterminal yellow spots on costa; postmedial line yellow, arising at vein 5, bent inwards to below end of cell and oblique to inner margin; a yellow terminal line except towards apex and tornus; hind wing wholly suffused with dark brown.

Hab. Mexico, Morelos (*H. H. Smith*), 1 ♂, 1 ♀ type *phœnna*, Guerrero (*H. H. Smith*), 1 ♀ type *mata*, Godman-Salvin Coll.; Jamaica (*Gosse*), 1 ♂ type, Up Park, 1 ♂, Constant Springs (*Walsingham*), 1 ♂, 1 ♀. *Exp.* 18–20 millim.

6010. Heliocontia cleta.

Agrophila cleta, Druce, Biol. Centr.-Am., Het. i. p. 302, pl. 28. f. 7 (1887).

♂. Head and thorax rufous, the metathoracic crest leaden black tipped with ochreous; palpi whitish, the 2nd and 3rd joints banded with black; frons whitish with dark bar above; antennæ black; pectus and legs white, the fore tibiæ and tarsi banded with black; abdomen ochreous white with dorsal red-brown bands. Fore wing orange-red, the costal area yellowish to near apex; a leaden-grey patch at base with obliquely curved outer edge; an antemedial black spot on costa; orbicular and reniform leaden grey defined by yellow, small, round, the former with leaden-grey band from it to inner margin, somewhat constricted at middle; medial, postmedial, and subterminal black spots on costa and an apical patch; an oblique leaden-grey band defined by yellow from below apex to just above submedian fold and a conical patch from just below the fold to inner margin along which it is produced to tornus. Hind wing pale purplish brown; cilia brown with pale line at base and pale tips; the underside yellowish, the costal and terminal areas tinged with brown.

Hab. Mexico, Guerrero, Omilteme (*H. H. Smith*), 1 ♂ type, Godman-Salvin Coll. *Exp.* 18 millim.

Genus SPRAGUEIA.

Type.

Spragueia, Grote, Check-List Noct. p. 25 (1875) ..... *guttata.*

Proboscis fully developed: palpi upturned, the 2nd joint reaching about to middle of frons and moderately scaled, the 3rd short; frons with small rounded prominence with slight corneous plate below it; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with decumbent crest; tibiæ smoothly scaled; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a minute longitudinally elongate areole; 11 from cell. Hind wing with veins 3, 4 stalked; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

A. Fore wing with pale centre to reniform ..... *guttata.*
B. Fore wing without pale centre to reniform.
  a. Fore wing with the terminal area leaden grey, irrorated with white ..... *fumosa.*
  b. Fore wing with more or less orange-red or rufous on terminal area.
    a^1. Fore wing with the antemedial line confluent with the postmedial line at inner margin ..... *magnifica.*
    b^1. Fore wing with the antemedial line not confluent with the postmedial line at inner margin.
      a^2. Fore wing with the antemedial line very strongly excurved ..... *[illegible].*
      b^2. Fore wing with the antemedial line not strongly excurved.
        a^3. Fore wing with the terminal area orange-red.
          a^4. Fore wing with pale costal fascia..... *leo.*
          b^4. Fore wing with pale patch at middle of costa with dark point on it ..... *dama.*
        b^3. Fore wing with the terminal area suffused with rufous.
          a^4. Fore wing with blackish patch at base of costa.
            a^5. Fore wing with the cilia yellow and rufous..... *[illegible]*
            b^5. Fore wing with the cilia black, whitish at tips towards apex..... *grana.*
          b^4. Fore wing without blackish patch at base of costa.
            a^5. Fore wing with the medial area leaden grey ..... *[illegible]*
            b^5. Fore wing with the medial area black ... *cleatra.*

6011. Spragueia guttata. (Plate CLXIX. fig. 1.)

Spragueia guttata, Grote, Can. Ent. vii. p. 225 (1875); Smith, Cat. Noct. N. Am. p. 305.

♀. Head and thorax blackish mixed with yellowish white, the tegulæ, patagia, and metathorax bright rufous, palpi yellowish

white with blackish bands on 2nd and 3rd joints; frons yellowish white below and with rufous bar above; pectus and legs white, the tibiæ and tarsi banded with black; abdomen brown with white segmental lines, the ventral surface white. Fore wing black; some rufous at base of median nervure and a streak on base of inner margin; yellowish white subbasal spots in and below cell; antemedial line yellowish white, curving round below costa to join the upper subbasal spot and incurved at median nervure; medial yellowish spots below costa, below cell, and above vein 1; reniform white defined by black, a yellowish spot before it below costa and a rufous band from its inner side to just above inner margin; postmedial line yellowish white, expanding into a spot at costa, below which it is interrupted by an oblique rufous fascia from apex, slightly angled inwards at discal fold and strongly below the reniform, then oblique to inner margin; subterminal line yellowish white, from below the rufous apical fascia to above tornus, slightly angled inwards at discal and submedian folds: a yellowish-white line just before termen from below apex to above tornus; cilia with rufous patches below apex, at middle, and above tornus. Hind wing reddish brown; cilia whitish at tips; the underside whitish suffused with brown.

Hab. U.S.A., Texas, Bastrop, 2 ♀ type. *Exp.* 22 millim.

6012. Spragueia funeralis. (Plate CLXIX. fig. 2.)

Spragueia funeralis, Grote, Papilio, i. p. 158 (1881); id. Ill. Essay, p. 61, pl. 3. f. 30; Smith, Cat. Noct. N. Am. p. 305.

Head and thorax yellowish white largely mixed with leaden grey and some rufous; palpi with rufous bands on 2nd and 3rd joints; frons and vertex of head with leaden grey bars; tarsi banded brown and yellowish; abdomen brown with whitish segmental lines, the ventral surface whitish. Fore wing leaden grey, the terminal area irrorated with white scales; an obliquely curved antemedial yellow band defined on outer side by orange-red from cell to inner margin; orbicular and reniform leaden grey with very faint dark outlines, the former round, the latter elliptical, a large yellow patch between them extending to costa, where there is a slight dark striga on it and an obliquely curved yellow band from lower angle of cell to inner margin defined on inner side by orange-red; an irregularly rounded postmedial yellow patch on costa. Hind wing whitish suffused with reddish brown; cilia whitish tinged with brown at base; the underside whitish, the costal and terminal areas suffused with brown, a brown discoidal bar.

Hab. U.S.A., Arizona, 2 ♀ type, Prescott (*Kunze*), 1 ♂, Oracle (*Oslar*), 1 ♂, 3 ♀. *Exp.* 18 millim.

6013. Spragueia magnifica. (Plate CLXIX. fig. 3.)

Spragueia magnifica, Grote, Papilio, ii. p. 183 (1882); Smith, Cat. Noct. N. Am. p. 304.

♀. Head and thorax leaden black; palpi yellowish white; lower part of frons, a bar above it, and the back of head yellowish white; patagia with yellowish streaks; pectus and legs yellowish white, the tarsi banded with black; abdomen brown with yellowish-white segmental lines, the ventral surface yellowish white, black at extremity. Fore wing leaden black, a yellowish-white fascia above basal half of inner margin with some red scales on its lower edge; antemedial line yellowish white, very obliquely excurved from base of costa towards which it expands to middle of inner margin, where it joins the postmedial line; orbicular and reniform leaden black, round, the former confluent with a black bar from costa and small mark below the cell, an oblique yellowish-white mark from costa to the latter, above which it is bent outwards; postmedial line yellowish white defined on inner side by orange-red from below costa on which there is a black streak to vein 1, the line expanding at costa, excurved to vein 4, then incurved and joining the antemedial line at vein 1; a yellow band just before termen with orange-red before it below costa and above inner margin; cilia leaden black. Hind wing whitish suffused with brown, especially towards termen; cilia whitish with a brown line near base, tinged with yellow at apex; the underside with the veins streaked with brown, a brown patch at middle of costa, the termen tinged with brown.

Hab. U.S.A., New Mexico, Roswell (*Cockerell*), 1 ♀, Arizona. *Exp.* 18 millim.

6014. Spragueia onagrus. (Plate CLXIX. fig. 4.)

Agrophila onagrus, Guen. Noct. ii. p. 205, pl. x. f. 2 (1852); Smith, Cat. Noct. N. Am. p. 304.

Head, tegulæ, and patagia bright rufous; palpi with black marks on 2nd and 3rd joints; frons with black patch; antennæ and patches at their bases black; thorax black with some rufous on dorsum; pectus and legs whitish mixed with brown, the tarsi brown ringed with white; abdomen black with pale rufous segmental lines and anal tuft, the ventral surface white. Fore wing orange-red; a large elliptical black patch on basal half traversed by a whitish fascia on vein 1 and with curved whitish fascia above it; orbicular and reniform black, round, the former with obliquely curved black fascia from costa to its inner edge and wedge-shaped mark to its outer edge, some whitish between them and above the reniform, which also has a small black mark above it on the costa; a black streak on middle of inner margin; postmedial line represented by a whitish mark on costa and a line from vein 6 to inner margin

strongly incurved below the cell, a black spot beyond it on costa and a broad black band from vein 6 to inner margin, its outer edge strongly indented at submedian fold; cilia blackish, orange-red at tornus. Hind wing fuscous brown with a fine white line at base of cilia.

Hab. U.S.A., Florida, 1 ♂, 1 ♀, Enterprize, 2 ♂, Tallahassa, 1 ♂, 1 ♀, Texas. *Exp.* 20 millim.

6015. Sprageueia leo. (Plate CLXIX. fig. 5.)

Agrophila leo, Guen. Noct. ii. p. 205 (1852); Smith, Cat. Noct. N. Am. p. 304.
Agrophila onagrus, Herr.-Schäff. Aussereur. Schmett. f. 269, nec Guen.

♂. Head and thorax black, the vertex of head, tegulæ, patagia, and a patch on metathorax rufous; palpi with the 1st joint and a band on 2nd whitish; lower part of frons whitish; pectus and legs whitish, the tibiæ and tarsi banded with black; abdomen black with whitish segmental lines, the anal tuft pale rufous, the ventral surface whitish. Fore wing orange-red, the costal area whitish from near base to near apex; a black fascia in base of cell extending to costa at base and another fascia on base of vein 1; antemedial line black at costa, then orange-red, curved; orbicular and reniform black, the former conjoined to an elongate mark below the cell; a small black spot on middle of costa and quadrate patch on inner margin; the reniform with a small black spot above it on costa and conjoined to a triangular patch beyond the cell with an oblique bar from it to inner margin representing the band beyond the postmedial line; a small black spot on costa towards apex; cilia black, orange-red at tornus. Hind wing fuscous brown with a fine whitish line at base of cilia; the underside whitish, the costal and terminal areas fuscous, a fuscous discoidal spot.

♀. Vertex of head usually black. Fore wing with the black fascia in base of cell conjoined to the orbicular patch, which is confluent with the reniform; hind wing wholly fuscous on underside.

Hab. U.S.A., Florida, Texas, 5 ♂, 4 ♀. *Exp.* 20 millim.

6016. Sprageueia dama.

Agrophila dama, Guen. Noct. ii. p. 205 (1952); Smith, Cat. Noct. N. Am. p. 305.
Agrophila transmutata, Wlk. xxxiii. 776 (1865), ♀; Druce, Biol. Centr.-Am., Het. i. p. 301; Smith, Cat. Noct. N. Am. p. 305.
Agrophila trifariana, Wlk. xxxiii. 777 (1865), ♂; Druce, Biol. Centr.-Am., Het. i. p. 302.
Sprageueia pardalis, Grote, Papilio, i. p. 50 (1881).

♂. Head and thorax blackish with rufous patches on vertex of head, tegulæ, and patagia; palpi and lower part of frons whitish tinged with rufous: pectus and legs whitish, the tibiæ and tarsi

banded with black; abdomen brown with white segmental lines, the anal tuft rufous, the ventral surface white. Fore wing orange-red; an oblique black patch at base from costa to inner margin, followed by a triangular yellowish-white patch from costa to submedian fold; orbicular and reniform purplish black, small, ringed, the former with purplish band from it to inner margin, a yellowish-white patch between them extending to costa on which there is a

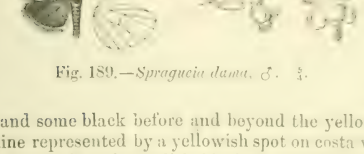

Fig. 189.—*Spragueia dama*, ♂. ¾.

black point and some black before and beyond the yellowish patch; postmedial line represented by a yellowish spot on costa with oblique black striga beyond it and purplish-black somewhat incurved band from below it to inner margin; a black patch on cilia at discal fold. Hind wing fuscous brown, the cilia whitish at tips; the underside whitish, the veins, costal and terminal areas suffused with brown.

♀. Vertex of head black; fore wing with black patch on costa beyond the subbasal yellowish patch, the whole medial area purplish black below the yellowish patch; the postmedial purplish-black band much broader; underside of hind wing wholly fuscous brown.

Hab. U.S.A., Alabama, 2 ♂, Florida, 1 ♀ type *pardalis*, Texas, 2 ♂, 3 ♀; Mexico, Guerrero (*H. H. Smith*), 2 ♂, Presidio (*Forrer*), 1 ♀, Tabasco (*H. H. Smith*), 1 ♀; Guatemala, San Isidro (*Champion*), 1 ♂, 3 ♀, S. Geronimo (*Champion*), 1 ♂; Cuba, Santiago (*Schaus*), 2 ♂, 2 ♀, Tanamo (*Schaus*), 1 ♂, Alcadro (*Schaus*), 1 ♂; Haiti (*Tweedie*), 3 ♀ type *transmutata*; Grenada (*H. H. Smith*), 3 ♀; Jab. ign., 1 ♂ type *trifuriana*. *Exp.* 16–22 millim.

6017. **Spragueia jaguaralis**, n. sp. (Plate CLXIX. fig. 6.)

Agrophila rudisana, Druce, Biol. Centr.-Am., Het. i. p. 302 (nec Wlk.).

♂. Head and thorax ochreous tinged with rufous, the dorsum of thorax mostly black; palpi whitish with a fuscous ring at base of 3rd joint; frons whitish with a fuscous bar above and bar on vertex of head; pectus and legs whitish, the tibiæ and tarsi banded with blackish; abdomen ochreous white with dorsal reddish-brown bands. Fore wing ochreous whitish suffused with rufous, the costal area ochreous whitish to beyond middle; a fuscous spot at base of costa confluent with a spot in cell further from base; an ochreous-white streak in base of submedian fold; an indistinct ochreous-white

antemedial line from cell to inner margin; orbicular and reniform fuscous grey, small, the former rather quadrate with a dark shade from it to inner margin, the latter round, defined by ochreous white; a triangular ochreous-white spot on costa towards apex; postmedial line ochreous white, from lower angle of cell to inner margin, obliquely incurved; subterminal line represented by some ochreous-white scales, obscurely angled inwards in submedian fold; an ochreous-white terminal line except towards apex and tornus; cilia yellow tinged with rufous, some black scales at base and blackish patches at apex and above middle and tornus. Hind wing reddish brown, the cilia with a pale line at base and pale tips; the underside ochreous white, the veins, costal and terminal areas suffused with brown.

♀. Head and thorax with more black; fore wing with oblique grey-black fasciæ on basal area from costa and above inner margin; an oblique grey-black band beyond the antemedial line from costa to submedian fold, above which it extends in and below cell to or to near postmedial line; the inner area with bright rufous bands beyond the antemedial and before the postmedial lines; terminal area grey-black irrorated with yellowish-white scales, some rufous on costa before and beyond the yellowish spot before apex.

Hab. U.S.A., Texas, San Antonio, 1 ♀ type; Mexico, Presidio (*Forrer*), 1 ♂, 3 ♀. *Exp.* 18 millim.

*6018. Spragueia grana. (Plate CLXIX. fig. 7.)

Agrophila grana, Dogn. Ann. Soc. Ent. Belg. xli. p. 414 (1897).

♂. Head and thorax black mixed with some ochreous white; palpi white in front except towards tips; lower part of frons and basal joint of antennæ in front white; tegulæ orange with black patch at middle; pectus and legs white, the tibiæ and tarsi banded with black; abdomen creamy white dorsally banded with pale brown. Fore wing orange-red, yellower towards costa; an oblique subbasal black patch from costa; antemedial, medial, and postmedial black spots on costa; orbicular and reniform black, small, round, some black irroration between them; the inner medial area black-brown to the extremity of median nervure with yellow streak and an oblique yellowish line from lower angle of cell to inner margin; postmedial area black-brown except towards costa, joined by an oblique black band from apex and shading into the terminal orange band which does not extend to apex; cilia black with a leaden gloss, yellowish at tips towards apex. Hind wing ochreous white, the veins and terminal area tinged with brown; cilia ochreous white with brown line near base; the underside with the costal area suffused with brown, a brown discoidal bar.

Hab. Ecuador, Loja, type † ♂ in Coll. Dognin. *Exp.* 22 millim.

6019. Spragueia plumbifimbriata. (Plate CLXIX. fig. 8.)

Spragueia plumbifimbriata, Grote, Can. Ent. ix. p. 68 (1877); Smith, Cat. Noct. N. Am. p. 304.

Head and thorax creamy white more or less suffused with rufous; palpi at tips and antennæ rufous; tarsi rufous ringed with white; abdomen creamy white, more or less suffused on dorsum with rufous leaving pale segmental lines. Fore wing yellowish white suffused with rufous except on costal area; some leaden grey sometimes present at base of inner margin; antemedial line yellowish white with rufous suffusion before it from cell to inner margin, curved, a broad leaden-grey band beyond it; orbicular and reniform leaden grey obscurely defined by yellowish white, small, round; postmedial line represented by an irregular rufous patch on costa above reniform and some rufous beyond the reniform, from lower angle of cell to inner margin yellowish white defined on inner side by rufous, incurved and slightly sinuous, with a broad leaden-grey band beyond it; subterminal line indistinct, yellowish white, incurved below vein 4 and bent outwards to tornus; a punctiform rufous terminal line defined on inner side by yellowish white; cilia leaden white. Hind wing ochreous white suffused with reddish brown, darker on terminal half; cilia whitish, with a brown line through hem; the underside ochreous white with brown discoidal bar and some brown suffusion on terminal area.

Hab. U.S.A., Texas, 1 ♂, 1 ♀ type, Kerrville, 1 ♀, Arizona (*Poling*), 1 ♀, Willgus, 1 ♀, Huachuca Mts., 1 ♀, Babaquivera Mts., 1 ♀. *Exp.* 18–22 millim.

*6020. Spragueia obatra.

Turache obatra, Morr. Proc. Bost. Soc. N. H. xviii. p. 124 (1875); Smith, Cat. Noct. N. Am. p. 305.

Head and thorax deep yellow; abdomen fuscous. Fore wing with the basal area deep yellow, the medial area black, the terminal area brown; a broad yellow costal fascia from apex to the middle of medial area; postmedial line strongly angled outwards below costa, defined on inner side by a brown shade. Hind wing blackish; the underside yellowish grey with traces of medial and terminal shades.

Hab. U.S.A., Louisiana. *Exp.* 17 millim. This species is unknown to me.

Genus GRÆPERIA.

	Type.
Heliodora, Neumœgen, Can. Ent. xxiii. p. 125 (1891), nec *Heliodore*, Stål, Hem. 1867	*costalis.*
Græperia, Grote, Abh. Nat. Ver. Brem. xiv. p. 108 (1895)	*costalis.*
Tornacontia, Smith, Trans. Am. Ent. Soc. xxvii. p. 55 (1900)	*sutrix.*

Proboscis fully developed; palpi obliquely porrect, short; frons with flattened corneous plate at middle and corneous plate below it; eyes large.

round; antennæ of male somewhat laminate and almost simple; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with depressed crest; tibiæ smoothly scaled; abdomen without crests. Fore wing rather narrow, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 9 from 10 anastomosing with 8 to form a longitudinally narrow areole; 11 from cell. Hind wing with veins 3, 4 stalked; 5 obsolescent from just below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

Sect. I. Frons with the plate at middle long and trilobate at tip, the plate below frons trilobate.

6021. Græperia tripartita.

Tornaeontia tripartita, Smith, Trans. Am. Ent. Soc. xxix. p. 210 (1903).
Tornaeontia mediatrix, Dyar, Proc. Ent. Soc. Wash. vi. p. 62 (1904).

Head and thorax brown mixed with some black and white, the palpi white except at tips; thorax white with black bars at sides of metathorax; fore and mid tibiæ and the tarsi brown ringed with white; abdomen white dorsally tinged with brown, ventrally with black. Fore wing creamy white with large dark patch on inner area beyond middle; the basal area with some brownish irroration; subbasal line represented by slight dark points on costa and in cell; antemedial line very indistinct, double, curved; orbicular a black point, the reniform defined by black, hoop-shaped, open below, some blue-grey on its outer edge; a small dark spot at middle of costa and a sinuous black line from cell to inner margin with a brown

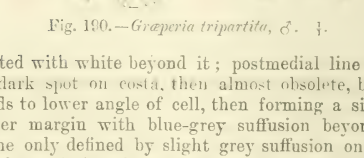

Fig. 190.—*Græperia tripartita*, ♂. ½.

band irrorated with white beyond it; postmedial line represented by a small dark spot on costa, then almost obsolete, below vein 4 bent inwards to lower angle of cell, then forming a sinuous black line to inner margin with blue-grey suffusion beyond it; subterminal line only defined by slight grey suffusion on inner side, excurved below vein 7 and at middle, then incurved; a grey mark at apex; a terminal series of black striæ; cilia white with dark patches at apex, middle, and tornus, and interrupted dark line through them. Hind wing white, the veins and terminal half faintly tinged with brown; a fine brown terminal line; cilia white brown at base towards apex; the underside white with faint brown postmedial spot below costa.

Hab. U.S.A., Arizona, Huachuca Mts. (*Oslar*), 3 ♂, 2 ♀ cotypes; *mediatrix*, Cochise Co., Wilgus. *Exp.* 26 millim.

Sect. II. Frons with the plate at middle long, with straight outer edge, the plate below frons with straight outer edge.

A. Frons with curved series of corneous teeth above the flattened plate.

6022. Græperia carcharodonta, n. sp.

♂. Head and tegulæ pale brown; thorax ochreous white mixed with brown; fore tibiæ and tarsi pale brown ringed with white; abdomen ochreous white tinged with brown. Fore wing ochreous white extending on costa to subterminal line and on inner margin to middle, the terminal area reddish brown suffused with purple-grey; subbasal line represented by small grey-brown spots on costa and below the cell, the antemedial line by a spot on costa and two points above inner margin; orbicular a black point; the reniform defined by brown at sides, small; a postmedial brown spot on costa connected by a striga with the dark terminal area; the postmedial line arising at vein 6 and represented by a series of minute dentate

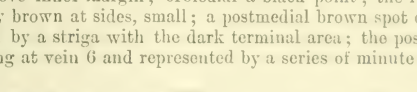

Fig. 191.—*Græperia carcharodonta*, ♂. ½.

black marks bent inwards below vein 4 to below end of cell; subterminal line slight, white, interrupted, defined on inner side by some black scales and below apex by minute dentate marks, somewhat dentate at veins 7, 6, 4, 3, then bent inwards and more prominent to inner margin; a terminal series of black points slightly defined by white on inner side; cilia brown with some white below apex and at middle. Hind wing ochreous white tinged with brown towards termen; cilia white with a brown line near base; the underside with brown discoidal bar and postmedial patch on costa with curved line from it to vein 4.

Hab. U.S.A., Texas, Tiger Hill, 1 ♂ type, San Antonio. *Exp.* 26 millim.

B. (*Tornacoutia*). Frons without series of teeth above the corneous plate.

a. Fore wing with the dark terminal area extending to before the medial line on inner area.....

b. Fore wing with the dark terminal area not extending to before the medial line on inner area.....

6023. Græperia sutor, n. sp. (Plate CLXIX. fig. 9.)

♂. Head and tegulæ grey-brown; thorax ochreous white mixed with brown; palpi white at base; fore tibiæ and the tarsi brown

ringed with white; abdomen ochreous white dorsally tinged with brown. Fore wing ochreous white; subbasal line indistinctly double, dark, waved, from costa to submedian fold; antemedial line represented by a curved dark bar from costa to median nervure and point on inner margin; orbicular a black point; the reniform defined by brown and some black scales, small, hoop-shaped, open below; the postmedial area red-brown suffused with purplish grey, extending to apex and tornus, its inner edge obliquely curved from costa to lower angle of cell round the reniform, then strongly incurved and with the blackish medial line on its inner edge; an oblique white striga from costa beyond middle followed by a triangular spot, the minutely dentate black postmedial line arising from its apex and strongly incurved below vein 4; subterminal line defined by slight somewhat dentate black marks on its inner edge, excurved below vein 7 and at middle, then bent inwards and oblique to tornus; the ochreous white terminal area with slight brown marks on it; a terminal series of black striæ except towards tornus; cilia purplish grey with white patches at apex and middle and slight dark line through them. Hind wing greyish suffused with reddish brown; cilia white with a brown line at base; the underside ochreous white tinged with brown, a slight dark discoidal lunule and patch on costa with excurved line from it to vein 3.

Hab. U.S.A., Arizona, Nogales (*Oslar*), 2 ♂ type. *Exp.* 26 millim.

6024. Græperia sutrix.

Tarache sutrix, Grote, Can. Ent. xii. p. 154 (1880); Smith, Cat. Noct. N. Am. p. 209.

Head and thorax ochreous white; antennæ brownish; fore tibiæ and tarsi brownish with pale rings; abdomen brownish ochreous. Fore wing ochreous white; subbasal line greyish, double, waved, from costa to submedian fold; antemedial line double, greyish,

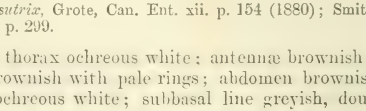

Fig. 192.—*Græperia sutrix*, ♂. ½.

waved; orbicular a black point, the reniform more or less incompletely defined by black, small, elliptical; a medial triangular grey spot on costa and black line from cell to inner margin with red-brown band on its outer edge: terminal area purple-grey with ochreous-white triangular spot from costa beyond the postmedial line, which is represented by a grey spot on costa, then by some

black and red-brown scales strongly incurved below vein 4; subterminal line ochreous white defined on inner side by slight red-brown marks, excurved below vein 7 and at middle, then bent inwards and oblique to tornus; a terminal series of small black spots defined on inner side by white; cilia red-brown at base, purple-grey at tips, with white patch at middle and some white at tips at apex. Hind wing ochreous white suffused with red-brown; cilia ochreous white with a brown line near base; the underside whitish with brown discoidal striga and more or less distinct postmedial line excurved at middle and obsolete on inner area.

Hab. U.S.A., Colorado, 2 ♂ type, Denver, 1 ♂, Nevada, New Mexico, Albuquerque (*Oslar*), 1 ♂, Arizona, Catalina Mts. (*Oslar*), 4 ♀, Tucson (*Oslar*), 4 ♀. *Exp.* 22–26 millim.

Sect. III. Frons with the plate at middle shorter and with straight outer edge.

A. Frons with the plate below it produced to a slight point at middle.
  a. Fore wing with the basal area white ..... *conocharodes*.
  b. Fore wing with the basal area grey irrorated with white. *megacula*.

6025. Græperia conocharodes, n. sp.

♂. Head and thorax white; palpi at tips, frons, antennæ, fore tibiæ, and the tarsi tinged with brown; abdomen white faintly tinged with brown on dorsum. Fore wing with the basal half pure white, the terminal half violaceous grey, its inner edge angled outwards in cell to the reniform and slightly in submedian fold, some black on it below the cell; a subbasal grey mark in cell; antemedial line faint, grey, waved; orbicular a black point; reniform

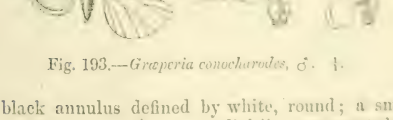

Fig. 193.—*Græperia conocharodes*, ♂. ½.

grey with black annulus defined by white, round; a small white postmedial spot on costa; the postmedial line represented by a few black scales, strongly incurved below vein 4 and more distinct on inner area; subterminal line white, excurved below vein 7 and at middle; a terminal series of black points; cilia grey at base, white at tips. Hind wing white, the termen tinged with grey except towards tornus; the underside with fine terminal brown line.

Hab. U.S.A., Arizona, Prescott (*Kunzé*), 1 ♂ type. *Exp.* 28 millim.

*6026. Græperia megocula. (Plate CLXIX. fig. 10.)

Tornacontia megocula, Smith, Trans. Am. Ent. Soc. xxvii. p. 58 (1900); Dyar, Cat. Lep. N. Am. p. 213.

♀. Head, thorax, and abdomen white. Fore wing almost uniform steel-grey, the basal area irrorated with white; faint traces of an antemedial line; orbicular a rather elongate black point; reniform with white annulus and black-irrorated centre, large, round, prominent; a whitish streak in cell from orbicular to reniform and thence to termen; subterminal line white, slightly irregular, a white patch on costa before it; the veins of terminal area streaked with white. Hind wing white, the termen tinged with fuscous. Frontal plate narrow at extremity.

Hab. U.S.A., S. California. *Exp.* 30 millim. This species is unknown to me; figured from a drawing from type in U.S. Nat. Mus.

B. (*Græperia*). Frons with the plate below it excised in front.
- *a.* Fore wing dark brown with yellow costal fascia ..... *costalis.*
- *b.* Fore wing of male orange suffused with rufous, of female ochreous white irrorated with rufous ..... *indubitans.*

6027. Græperia costalis.

Acontia costalis, Wlk. xii. 787 (1857); Druce, Biol. Centr.-Am., Het. i. p. 308, pl. 28. f. 23.

Heilodora magnifica, Neum. Can. Ent. xxiii. p. 125 (1891); Smith, Cat. Noct. N. Am. p. 273.

♀. Head, tegulæ, and patagia white tinged with fulvous yellow; palpi at tips and antennæ brown; dorsum of thorax dark red-brown; pectus and legs white, the fore and mid tibiæ and tarsi with some brown mixed; abdomen ochreous white dorsally tinged with brown. Fore wing dark chocolate-brown with a slight greyish

Fig. 194.—*Græperia costalis*, ♂. ½.

tinge the costal area white suffused with fulvous yellow from inner margin near base to just before apex, its lower edge very slightly angled at end of cell; traces of an incurved postmedial line from vein 4 to inner margin; cilia greyish at tips. Hind wing white, the veins and costal area with an ochreous tinge, the terminal area

suffused with red-brown from apex to submedian fold; cilia white, red-brown at base except towards tornus; the underside white, the costal and terminal areas tinged with ochreous.

Hab. U.S.A., Texas, Houston; Mexico, Guerrero (*H. H. Smith*), 1 ♂, Yucatan (*Gaumer*), 2 ♀; Guatemala, Vera Paz (*Champion*), 1 ♀, San Geronimo (*Champion*) 1 ♀, Godman-Salvin Coll.; Haiti (*Tweedie*), 2 ♀ type; Brazil, Amazons, Santarem (*Bates*), 1 ♀. *Exp.* 24–28 millim.

6028. **Græperia indubitans.** (Plate CLXIX. figs. 11 ♂, 12 ♀.)

Nonagria indubitans, Wlk. xi. 712 (1857).
Acontia dimidiata, Wlk. xxxiii. 783 (1865).
Monodes citrina, Druce, Biol. Centr.-Am., Het. i. p. 280, pl. xxvii. f. 7 (1889).

♀. Head and thorax grey-white tinged with brownish ochreous; palpi at tips and antennæ brown; fore and mid tibiæ irrorated with brown, the tarsi brown ringed with white; abdomen white dorsally tinged with brown. Fore wing pale olive-yellow slightly irrorated with red-brown; antemedial line red-brown, excurved, dilated towards inner margin; orbicular a red-brown point, the reniform indicated by a few red-brown scales; a rather diffused red-brown medial line, slightly angled outwards below costa and with red-brown suffusion beyond it on inner area; postmedial line red-brown, oblique from costa to vein 6 and incurved below vein 5; subterminal line defined by red-brown on inner side and on outer towards apex, bent outwards below costa and incurved below vein 4; cilia with brown patches at apex and above tornus. Hind wing whitish, the terminal area suffused with red-brown from apex to submedian fold; cilia white tinged with red-brown at base except towards tornus; the underside white, the costal and terminal areas tinged with ochreous.

♂. Head, thorax, and fore wing suffused with deep rufous, the last slightly irrorated with white scales, the basal area and costal area to beyond middle somewhat yellower, the markings obscured, the subterminal line obsolete; hind wing white, the termen slightly tinged with brown.

Hab. Guatemala, St. Geronimo (*Champion*), 2 ♂ type *citrina*; Cuba, Santiago (*Schaus*), 1 ♂; Haiti (*Tweedie*), 1 ♀ type *dimidiata*; Brazil, Pará (*Johnson*), 1 ♂ type. *Exp.* 24–28 millim.

Genus **FRUVA**.

	Type.
Fruva, Grote, Can. Ent. ix. p. 69 (1877)	*fasciatrilla*.

Proboscis fully developed; palpi obliquely porrect, short; frons with truncate conical prominence with raised corneous rim at extremity; eyes large, round; antennæ of male minutely ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with depressed crest; tibiæ smoothly scaled; abdomen without crests. Fore wing rather narrow,

the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a longitudinally narrow areole, 11 from cell. Hind wing with veins 3, 4 stalked; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

6029. Fruva fasciatella.

Spragueia fasciatella, Grote, Can. Ent. vii. p. 225 (1875); Smith, Cat. Noct. N. Am. p. 302.

♂. Head and tegulæ white; antennæ brownish; thorax ochreous tinged with rufous; pectus and legs white, the fore tibiæ and the tarsi brownish ringed with white; abdomen brownish ochreous, ventrally white. Fore wing ochreous white tinged with rufous; an indistinct diffused curved rufous antemedial line; medial line indistinct, diffused, rufous, oblique from costa to middle of cell,

Fig. 195.—*Fruva fasciatella*, ♂. $\frac{4}{3}$.

then inwardly oblique; traces of a minute elliptical rufous reniform; postmedial line indistinct, rufous, diffused, excurved from costa to vein 5, then incurved; a terminal series of slight brown points; cilia red-brown with some ochreous at base. Hind wing ochreous white, the veins and termen tinged with red-brown; cilia white with a slight brown line at base; the underside uniform ochreous white.

♀. Fore wing more mottled with red-brown, the costal area whitish; orbicular a brown point with white annulus; reniform distinct; postmedial line defined by whitish on outer side; subterminal line whitish, excurved below vein 7 and at middle, then bent inwards and oblique to tornus; an oblique red-brown mark from apex.

Hab. U.S.A., Texas (*Belfrage*), 1 ♂, 3 ♀ type, Arizona, Globe (*Kunzé*), 2 ♂, Pinal Mts. (*Kunzé*), 2 ♂, 2 ♀. *Exp.* 18–20 millim.

Genus CONOCHARES.

	Type.
Conochares, Smith, J. N.Y. Ent. Soc. xiii. p. 207 (1905)	*acuta*.

Proboscis fully developed; palpi obliquely porrect, short; frons with rounded prominence with slight raised rim at extremity and corneous plate below it; eyes large, round; antennæ of male almost simple; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with

decumbent crest; tibiæ smoothly scaled; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3, 4 stalked; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

A. Fore wing with distinct dark shade beyond medial line.
  a. Fore wing with the medial line acutely angled outwards in cell to the annulus of reniform.
    a^1. Fore wing with the centre of reniform white ..... *acuta*.
    b^1. Fore wing with the reniform nearly filled in with fuscous ..... *obtusa*.
  b. Fore wing with the medial line excurved in cell but not to the annulus of reniform.
    a^1. Fore wing with the terminal area mostly white.
      a^2. Fore wing with the shade beyond the medial line dark rest-brown ..... *clytusalis*.
      b^2. Fore wing with the shade beyond the medial line pale rufous ..... *rufa*.
    b^1. Fore wing with the terminal area almost wholly suffused with pale brown ..... *interrupta*.
B. Fore wing without distinct dark shade beyond medial line.
  a. Fore wing without dark bar from costa to outer edge of reniform ..... *simplex*.
  b. Fore wing with dark bar from costa to outer edge of reniform ..... *fasciata*.

6030. Conochares acuta. (Plate CLXIX. fig. 13.)

Conochares acutus, Smith, J. N.Y. Ent. Soc. xiii. p. 207 (1905).

♀. Head, thorax, and abdomen white; palpi with the second and third joints brownish ringed with white at tips; antennæ brown; tarsi brownish ringed with white. Fore wing with the basal half silvery white; a small greyish spot in base of cell and antemedial spot on costa; terminal half white suffused with grey, bounded on inner side by the blackish medial line, acutely angled outwards in cell and with some fuscous suffusion beyond it forming a somewhat conical patch on inner area; faint traces of an elliptical white annulus to reniform; a slight brownish postmedial spot on costa; subterminal line defined on inner side by a faint dark shade, slightly excurved below vein 7 and at middle and incurved towards inner margin; a terminal series of black points; cilia white with some fuscous brown at apex, discal fold, and tornus. Hind wing white suffused with fuscous brown except the cell and area below it; a faint discoidal spot; cilia white. Underside of fore wing brown, the inner area and costa except towards base white; hind wing white, the costal area and terminal area to vein 4 irrorated with brown.

Hab. U.S.A., Arizona, Redington, 1 ♀, Sta. Catalina Mts.
Exp. 26 millim.

6031. **Conochares altera.** (Plate CLXIX. fig. 14.)

Tornacontia altera, Smith, Trans. Am. Ent. Soc. xxix. p. 209 (1903).

♂. Head, thorax, and abdomen pure white; palpi at tips and antennæ rufous; fore legs in front, mid tibiæ, and the tarsi tinged with rufous; anal tuft tinged with ochreous. Fore wing with the basal half silvery white: a slight oblique antemedial dark striga below costa; terminal half white suffused with brownish grey, defined on inner side by the blackish medial line with some rufous suffusion beyond it, angled outwards in cell to the reniform and slightly in submedian fold; reniform grey with white annulus and white striga in centre, elliptical; postmedial line faint, curved, whitish, with white suffusion before and beyond it at costa; subterminal line white with a faint olive tinge before it and minute black marks above and below vein 6, slightly excurved below vein 7 and at middle and incurved below vein 3; a black terminal line; cilia white with dark patches at apex, discal fold, and tornus. Hind wing white, the terminal area suffused with brown from apex to submedian fold; cilia white. Underside of fore wing brown, the inner area white, the costa white except towards base.

Hab. U.S.A., California, San Diego (*Wright*), 1 ♂, New Mexico, Hot Springs, Arizona. *Exp.* 28 millim.

6032. **Conochares elegantula.**

Thalpochares elegantula, Harv. Can. Ent. viii. p. 55 (1876); Smith, Cat. Noct. N. Am. p. 300.
Tarache semiopaca, Grote, Bull. Geog. Geol. Surv. Terr. iv. p. 182 (1878).

Head and thorax pure white; palpi and antennæ reddish brown; legs tinged with red-brown, the fore tibiæ and tarsi brown ringed

Fig. 196.—*Conochares elegantula*, ♂. ¾.

with white; abdomen white, the anal tuft tinged with yellowish. Fore wing with the basal half pure white, the costal edge brownish; a subbasal brown point in cell; a slight medial blackish line, excurved in cell and slightly in submedian fold, followed by a broad red-brown band expanding at inner margin to tornus; reniform blackish defined by white, elliptical, a silvery blue patch above it and a sinuous band from its inner edge to inner margin on the brown area; terminal area yellowish white; subterminal line

defined by reddish-brown patches before it at costa and below veins 7 and 5 and some brown beyond it at apex, excurved below vein 7 and at middle, then bent inwards and forming the outer edge of the brown band; a terminal series of black strigæ; cilia white, red-brown towards apex with some white at tips of apex. Hind wing white, the terminal area suffused with reddish brown; cilia white; the underside with the costa tinged with yellowish.

Hab. U.S.A., Montana, Colorado, Nevada, 1 ♀ type *semiopaca*, California, Mendocino Co. (*Walsingham*), 4 ♂, 1 ♀, Colusa Co. (*Walsingham*), 6 ♂, 1 ♀. *Exp.* 22–24 millim.

6033. Conochares arizonæ. (Plate CLXIX. fig. 15.)

Thalpochares arizonæ, H. Edw. Pacific Coast Lep. no. 29, p. 7 (1878); Smith, Cat. Noct. N. Am. p. 300.
Orchæna semivicalis, Hulst, Trans. Am. Ent. Soc. xiii. p. 157 (1886).

Head, thorax, and abdomen pure white; palpi at tips and antennæ fuscous; fore tibiæ and the tarsi brown ringed with white. Fore wing with the basal half white, the terminal half suffused with grey; a slight blackish medial line somewhat incurved in cell and submedian fold and followed by a reddish-brown band with its outer edge irregularly diffused; reniform brown defined by white, small, round; a diffused white postmedial patch on costal area; subterminal line white defined on inner side by brownish suffusion, excurved below vein 7 and at middle and bent outwards to tornus; a terminal series of black points; cilia white with red-brown patches at and below apex. Hind wing white, the terminal area tinged with brown narrowing to tornus; the underside wholly white.

Hab. U.S.A., New Mexico, Hot Springs, Arizona, Phœnix (*Oslar*, *Kunzé*), 1 ♂, 5 ♀, Huachuca Mts., 1 ♀. *Exp.* 18–22 millim.

6034. Conochares interrupta. (Plate CLXIX. fig. 16.)

Conochares interruptus, Smith, J. N.Y. Ent. Soc. xiii. p. 208 (1905).

♀. Head, thorax, and abdomen creamy white, the vertex of thorax and abdomen tinged with ochreous; palpi tinged with brown towards tips; antennæ brownish; fore tibiæ and the tarsi brownish ringed with white. Fore wing with the basal half creamy white, the terminal half suffused with red-brown, bounded on inner side by the somewhat darker medial line which is excurved in cell; reniform with brownish centre defined by a few dark scales and faint whitish annulus, elliptical; a whitish postmedial spot on costa and traces of a whitish postmedial line excurved to vein 5, then incurved; a faint whitish subterminal line, slightly excurved below vein 7 and at middle and bent outwards to tornus; a terminal series of black points; cilia creamy white, tinged with

rufous at apex and discal fold. Hind wing semihyaline white, the termen slightly tinged with rufous; the underside with the costa tinged with ochreous.

Hab. U.S.A., California, Argus Mts., 1 ♀ co-type, Walter's Station, Arizona, Phœnix, Yuma Co. *Exp.* 24 millim.

6035. Conochares catalina. (Plate CLXIX. fig. 17.)

Thalpochares catalina, Smith, J. N.Y. Ent. Soc. xiv. p. 29 (1906).

♂. Head and thorax white; palpi at tips and antennæ brownish; fore tibiæ and tarsi brownish ringed with white; abdomen yellowish white. Fore wing creamy white; reniform small with faint brownish annulus; a faint brownish medial band, oblique to the reniform, then inwardly oblique; a diffused brownish terminal band. Hind wing white, the termen tinged with brown except towards tornus.

Hab. U.S.A., Arizona, Phœnix (*Kunzé*), 1 ♂. *Exp.* 22 millim.

6036. Conochares hutsoni. (Plate CLXIX. fig. 18.)

Thalpochares hutsoni, Smith, J. N.Y. Ent. Soc. xiv. p. 28 (1906).

Head, thorax, and abdomen creamy white, the last tinged with ochreous; palpi brownish at tips; antennæ brownish ringed with white; fore tibiæ and the tarsi brownish ringed with white. Fore wing creamy white tinged with ochreous; a faint diffused brownish ochreous antemedial line excurved from costa to median nervure, then incurved; a black point in middle of cell; the reniform blackish with faint white annulus, small, round; a faint curved brownish ochreous medial shade; postmedial line rather diffused, brownish, obliquely curved from costa to lower edge of reniform; then incurved and approximated to the medial shade; an ochreous brown shade before termen, which is white with a punctiform black line except towards apex and tornus; cilia white. Hind wing white tinged with brownish ochreous, the cilia white; the underside white, the costal area tinged with ochreous.

Hab. U.S.A., Arizona, Yuma Co., 1 ♂, 1 ♀, Phœnix (*Kunzé*), 1 ♀. *Exp.* 20 millim.

Genus TARACHIDIA.

	Type.
Tarachidia, Hmpsn. Trans. Ent. Soc. 1898, p. 248	*flavibasis.*

Proboscis fully developed; palpi obliquely porrect, short, slender; frons with rounded prominence with a slight raised rim at extremity and triangular corneous plate below it; eyes large, round; antennæ of male minutely ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with decumbent crest; tibiæ smoothly scaled; abdomen without crests. Fore wing rather narrow, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a longitudinally narrow areole:

11 from cell. Hind wing with veins 3, 4 stalked; 5 almost obsolete from middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

A. Fore wing with the reniform present.
  a. Fore wing with the orbicular present.
    a^1. Fore wing with the orbicular round, slightly defined by white ..... *margarita*.
    b^1. Fore wing with the orbicular a black point.
      a^2. Fore wing with medial dark band on inner half cut off above by a white streak on median nervure.
        a^3. Fore wing with the antemedial line oblique, straight ..... [illegible]
        b^3. Fore wing with the antemedial line strongly excurved ..... [illegible]
      b^2. Fore wing without white streak on extremity of median nervure.
        a^3. Fore wing ochreous yellow or grey-brown.
          a^4. Fore wing with the terminal area suffused with rufous except at apex ..... *parvula*.
          b^4. Fore wing with the terminal area not suffused with rufous ..... [illegible]
        b^3. Fore wing with the basal area white or creamy white.
          a^4. Fore wing with the reniform indistinct and not defined by white ..... [illegible]
          b^4. Fore wing with the reniform more or less completely defined by white.
            a^5. Fore wing with the dark shade confined to inner medial area.
              a^6. Fore wing with the terminal area suffused with rufous ..... *mammeles*.
              b^6. Fore wing with the terminal area grey . *libatis*.
            b^5. Fore wing with the dark shade extending to apex.
              a^6. Fore wing with the medial shade not yellow throughout.
                a^7. Fore wing without olive shades on medial and postmedial areas.
                  a^8. Fore wing of male creamy white, of female with the basal area suffused with purplish grey ..... *corrientes*.
                  b^8. Fore wing of male pure white, of female with the basal area not suffused with purplish grey ..... *tenuicula*.
                b^7. Fore wing with olive shades on medial and postmedial areas ..... *caudefacta*.
              b^6. Fore wing with the medial shade yellow throughout ..... [illegible]
  b. Fore wing with the orbicular absent.
    a^1. Fore wing with the terminal area white, sometimes tinged with grey.
      a^2. Fore wing with the medial shade yellow throughout ..... [illegible]
      b^2. Fore wing with the medial shade not yellow throughout.
        a^3. Fore wing with the dark shade extending to apex ..... [illegible]

b^3. Fore wing with the dark shade extending from below apex to inner margin ..... *tenuescens.*
c^3. Fore wing with dark shade at apex and from cell to inner margin ..... *lucita.*
b^1. Fore wing with the terminal area dark.
a^2. Fore wing without semicircular white patch on postmedial part of costa ..... *semibrunnea.*
b^2. Fore wing with semicircular white patch on postmedial part of costa ..... *cuta.*
B. Fore wing with the reniform absent.
a. Fore wing with curved white fascia from base below the cell to the white costal fascia beyond the cell ... *alata.*
b. Fore wing without curved white fascia.
a^1. Fore wing pinkish with yellow subbasal and medial bands ..... *jucira.*
b^1. Fore wing yellow with incurved grey postmedial band.
a^2. Fore wing with the band narrow, defined by white on inner side only..... *perita.*
b^2. Fore wing with the band broad, defined by white on both sides ..... *venustula.*
c^1. Fore wing with the basal half yellow, at least in male, the terminal half dark.
a^2. Fore wing with the outer edge of yellow area erect and defined by white..... *clausula.*
b^2. Fore wing with the outer edge of yellow area oblique and not defined by white.
c^3. Hind wing whitish suffused with brown ..... *semiflava.*
b^3. Hind wing dark brown, the basal area of fore wing of female brown irrorated with grey and a few olive-yellow scales ..... *flavibasis.*
d^1. Fore wing uniform glossy black-brown slightly irrorated with grey ..... *fumata.*

6037. **Tarachidia margarita.** (Plate CLXIX. fig. 19.)

Spragueia margarita, Schaus, Trans. Am. Ent. Soc. xxx. p. 163 (1904).

♀. Head pure white, the palpi at tips and antennæ brownish; thorax yellowish white suffused with olive-green; pectus and legs white, the tibiæ and tarsi banded with brown; abdomen reddish brown, the ventral surface white. Fore wing with the basal area yellowish white; subbasal line rufous, from costa to submedian fold; the rest of wing olive-brown with a cupreous tinge, the medial and apical areas suffused in parts with silvery grey; antemedial line represented by the contrast between the basal and medial areas, excurved to median nervure and incurved in submedian interspace; orbicular and reniform with very slight whitish annuli, small, round; a triangular postmedial white patch on costa, the postmedial line arising from its apex and obscurely defined by dark suffusion on inner side, strongly incurved below vein 4; subterminal line white, almost obsolete towards costa, excurved below vein 7 and at middle, angled inwards above and below vein 2 and bent outwards to tornus; some dark points and striæ on termen slightly defined by white on inner side; cilia brown, whitish at tips and with whitish patches at middle and tornus. Hind wing

cupreous brown, the cilia pale with a brown line near base. Underside of fore wing with the costal area yellow towards apex, the inner area white; hind wing white with slight discoidal spot, indistinct postmedial line strongly excurved beyond the cell, then obsolete, and some brown on termen.

Hab. Venezuela (*Schreider*), 1 ♀, Palma Sola, 1 ♀, Aroa, type † in U.S. Nat. Mus. *Exp.* 18 millim.

6038. **Tarachidia viridans.** (Plate CLXIX. figs. 20 ♂, 21 ♀.)

Tarache viridans, Schaus, Trans. Am. Ent. Soc. xxx. p. 160 (1904.)

♂. Head and thorax white with an olive tinge; palpi at tips and antennæ brown; patagia with dark brown streak on outer edge; pectus and legs whitish, the tibiæ and tarsi tinged with brown; abdomen whitish dorsally tinged with rufous. Fore wing whitish tinged with olive-green especially on terminal area; a diffused oblique olive-green antemedial line slightly bent inwards to costa; orbicular a dark point, the reniform a small round blackish spot; an incurved blackish line defined by white above and below from just below angle of cell to inner margin, with a lunulate olive-green patch on its outer edge; a small wedge-shaped postmedial white patch on costa, the slight whitish postmedial line arising from its apex, incurved below vein 4 and forming the outer edge of the green patch; subterminal line represented by a slight whitish striga from costa with small reddish spot before it; a terminal series of slight dark points except towards tornus; cilia pale. Hind wing whitish, the terminal area tinged with brown. Underside of fore wing with the costal area red on terminal half with some yellowish marks on costa; hind wing white with slight brown discoidal point and postmedial bar between veins 6 and 4.

♀. Head and thorax bright rufous, fore wing suffused with rufous with some greyish on inner medial area and towards tornus, the antemedial line and postmedial patch dark brown; hind wing suffused with red-brown.

Hab. Brazil, Espiritu Santo, 2 ♂, Organ Mts., Tijuca (*Wagner*), 1 ♂, 1 ♀, São Paulo (*D. Jones*), 2 ♂, 3 ♀; Paraguay, Sapucay (*Foster*), 14 ♂, 16 ♀; Argentina, Goya (*Perrins*), 2 ♂, 13 ♀, Gran Chaco, Florenzia (*Wagner*), 5 ♂, 5 ♀, Tucuman, 1 ♀, Los Vasquez (*Dinelly*), 1 ♀. *Exp.* 18–20 millim. Type † in U.S. Nat. Mus.

6039. **Tarachidia albisecta**, n. sp. (Plate CLXIX. fig. 22.)

♀. Head and thorax pale rufous, the tegulæ white with a few rufous scales; pectus and legs whitish, the tibiæ and tarsi tinged with brown; abdomen rufous, the ventral surface white. Fore wing with the basal half whitish tinged with rufous and irrorated

with a few dark scales, the terminal half rufous; a diffused red-brown antemedial line, oblique from cell to inner margin; orbicular a black point, the reniform defined by a few black scales; a white streak on extremity of median nervure and base of vein 4; a dark brown spot on costa above end of cell and somewhat incurved line from the white streak to inner margin; postmedial line dark brown, excurved from below costa to vein 4, then incurved, defined by whitish on outer side towards costa; subterminal line represented by a faint pale striga from costa with a slight blackish mark beyond it below apex; a terminal series of black striæ defined on inner side by a white line from below apex to above tornus; cilia rufous mixed with some white. Hind wing whitish tinged with rufous, especially on terminal area; cilia white tinged with rufous at base; the underside ochreous white slightly irrorated with brown.

Hab. Argentina, Tapia, 6000′, 1 ♀ type. *Exp.* 24 millim.

6040. Tarachidia parvula. (Plate CLXIX. fig. 23.)

Xanthodes parvula, Wlk. xxxiii. 779 (1865); Smith, Cat. Noct. N. Am. p. 303.
Fruva georgica, Grote, Can. Ent. xiii. p. 232 (1881).

Head and thorax ochreous yellow tinged with rufous; palpi white at base, brownish at tips; antennæ brown; pectus and legs white, the fore tibiæ and tarsi brownish; abdomen white, dorsally tinged with rufous. Fore wing ochreous yellow, the inner and terminal areas suffused with rufous, the rufous on terminal area expanding triangularly in discal fold to end of cell; orbicular a black point; reniform a minute annulus very indistinctly defined by brown scales; traces of an oblique line from lower angle of cell to inner margin; a dark brown terminal line; cilia dark leaden fuscous. Hind wing whitish suffused with red-brown, the cilia brown at base, white at tips; the underside ochreous white, the costal area tinged with brown.

Hab. U.S.A., Georgia, 1 ♂ type *georgica*; hab. ign., 1 ♀ type. *Exp.* 24 millim.

6041. Tarachidia tortricina. (Plate CLXIX. fig. 24.)

Agrophila tortricina, Zell. Verh. zool.-bot. Ges. Wien, xxii. p. 461, pl. 2 f. 5 (1872); Smith, Cat. Noct. N. Am. p. 306.
Fruva obsoleta, Grote, Can. Ent. ix. p. 69 (1877); Smith, Cat. Noct. N. Am p. 302.
Spragueia inorata, Grote, Papilio, ii. p. 183 (1882).
Fruva modesta, H. Edw. Papilio, iv. p. 124 (1884); Smith, Cat. Noct N. Am. p. 302.
Fruva delota, H. Edw. Papilio, iv. p. 124 (1884); Smith, Cat. Noct. N. Am p. 303.

Head and thorax ochreous yellow; palpi white, brownish at tips antennæ, fore tibiæ, and tarsi brownish; abdomen white faintly

tinged with brown on dorsum. Fore wing ochreous yellow; the orbicular a black point, the reniform a minute blackish annulus; postmedial line represented by a few scales beyond the cell and an oblique brown line from lower angle of cell to inner margin, with triangular patch of brown suffusion beyond it; a terminal series of slight black points; cilia brown. Hind wing whitish tinged with reddish brown, the cilia brown at base, white at tips; the underside uniform yellowish white.

Ab. 1. *obsoleta*. Fore wing with the markings almost obsolete.

Ab. 2. *modesta*. Head, thorax, and fore wing grey-brown slightly suffused with yellowish-white scales.

Ab. 3. *deleta*. Fore wing dark brown suffused with olive-yellow scales leaving the termen and cilia dark, almost without markings.

Hab. Canada, Hudson's Bay, Alberta, Calgary; U.S.A., Illinois, 1 ♂ type *obsoleta*, Iowa, Kansas, Texas, 2 ♂, Colorado, Boulder (*Cockerell*), 2 ♂, Nevada, Virginia City, California Lake Co. (*Walsingham*), 5 ♂, 5 ♀. *Exp.* 22–24 millim.

6042. Tarachidia erastrioides. (Plate CLXIX. fig. 25.)

Acontia erastrioides, Guen. Noct. ii. p. 218 (1852); Smith, Cat. Noct. N. Am. p. 299.

Head blackish brown, the palpi whitish at base; thorax white; fore tibiæ and the tarsi brown ringed with white; abdomen white dorsally slightly tinged with brown, the anal tuft ochreous. Fore wing chalky white; subbasal line pale brown, from costa to submedian fold; antemedial line pale brown, slightly incurved at submedian fold; orbicular a black point; the reniform brown defined by a few black scales, small, elliptical; a small brown spot on middle of costa and an oblique sinuous line from cell to inner margin; the outer part of medial area and the postmedial area except towards costa olive-brown shading to purple-grey suffused with blackish; postmedial line pale brown and oblique from below costa to vein 6, then black, incurved and minutely waved below vein 4; subterminal line white defined on inner side by pale brown towards costa and on outer side by pale brown except towards costa, excurved below vein 7 and at middle, bent outwards to tornus; a terminal series of black points; cilia white tinged with fuscous at middle and tornus. Hind wing white, the terminal half suffused with brown; cilia white with a slight brown line near base; the underside ochreous white.

Hab. Canada; U.S.A., south to Virginia and west to the Mississippi, Massachusetts (*Packard*). 1 ♂, 1 ♀. New York (*Schlegel*), 1 ♂, 2 ♀, Evans Center (*Grote*), 1 ♂, Illinois, 1 ♂, 1 ♀. *Exp.* 20–22 millim.

Larva. Coquillett, Papilio, i. p. 8.

Deep green; a white stigmatal stripe; body with 16 or 18 wavy black and white lines or 12 white lines; head green marked with black and white. Food-plant: *Ambrosia artemisiæfolia*. 7.

6043. **Tarachidia nannodes**, n. sp. (Plate CLXIX. fig. 26.)

♀. Head, thorax, and abdomen ochreous white; fore tibiæ and the tarsi brownish ringed with white. Fore wing ochreous white; subbasal line represented by a slight brownish bar from costa; antemedial line with small red-brown spot at costa, then indistinct and interrupted; orbicular a small black spot; reniform a small oblique elliptical brown spot with ochreous white bar through middle; a triangular red-brown spot from middle of costa and an obliquely curved line from cell to inner margin with a brown and purplish-grey patch beyond it; postmedial line red-brown, oblique from below costa to vein 6, then inwardly oblique and bent outwards to inner margin, a wedge-shaped yellowish-white mark beyond it from costa and some yellowish white on inner area; terminal area red-brown, the subterminal line slightly defined on inner side by black and purple-grey towards costa, then obsolete; a terminal series of small black spots slightly defined on inner side by white; cilia black-brown, with white patches below apex and middle. Hind wing whitish tinged with brown; cilia brown at base, white at tips; the underside with discoidal point and traces of a diffused curved postmedial line from costa to vein 4.

Hab. U.S.A., Arizona, Globe (*Kunzé*), 1 ♀ type. *Exp.* 18 millim.

6044. **Tarachidia libedis.** (Plate CLXIX. fig. 27.)

Acontia libedis, Smith, Trans. Am. Ent. Soc. xxvii. p. 80 (1900); Dyar, Cat. Lep. N. Am. p. 214.

Head and thorax creamy yellowish white; antennæ brownish; pectus and legs white, the fore tibiæ and tarsi brownish ringed with white; abdomen ochreous white. Fore wing creamy ochreous white; a subbasal grey spot in cell; antemedial line greyish or ochreous, oblique from costa to median nervure, then inwardly oblique; orbicular a black point; reniform grey, small, elliptical; medial line grey at costa, olive-yellow in cell, then chocolate-brown, angled outwards in cell, then oblique and slightly sinuous, a grey patch beyond it on inner area; postmedial area olive-yellow with a dark point on costa followed by a creamy-white wedge-shaped patch, the slight postmedial creamy-white patch arising from its apex, oblique, angled inwards in submedian fold and outwards above inner margin; subterminal line creamy white, excurved below vein 7, oblique and minutely dentate at middle and bent outwards to tornus; terminal area grey; a terminal series of black points slightly defined by white on inner side; cilia red-brown at base, grey at tips, with yellow patches below apex and at middle. Hind wing white, the veins and termen tinged with reddish brown; cilia white with a slight brown line near base; the underside wholly white.

Hab. U.S.A., Texas, 2 ♂, Kerrville, 1 ♂, 2 ♀, Colorado, Denver, New Mexico, Roswell (*Cockerell*), 1 ♀, Hot Springs, Arizona, Prescott, 1 ♀. *Exp.* 22–24 millim.

6045. Tarachidia corrientes, n. sp. (Plate CLXIX. figs. 2♂, 29♀.)

♂. Head, thorax, and abdomen white tinged with ochreous; palpi at tips, frons, and antennæ brownish; fore tibiæ and the tarsi brown ringed with white. Fore wing creamy white, the terminal area red-brown mixed with purplish grey, its inner edge sinuous from costa to lower angle of cell, then incurved; subbasal line represented by a slight brown mark on costa; antemedial line brownish, oblique to median nervure, then incurved; a brown striga from middle of costa; orbicular a minute black point; the reniform blackish, small, elliptical; postmedial line with whitish striga from costa, then black, somewhat irregular, excurved to vein 4, then strongly incurved; subterminal line whitish, excurved below vein 7 and at middle and defined on inner side by blackish, then incurved and bent outwards to tornus; a terminal series of black points; cilia rufous with a slightly darker line through them and whitish patch below apex. Hind wing ochreous white, the terminal area suffused with red-brown; cilia white tinged with brown near base; the underside with faint rufous marks from costa beyond middle and at apex.

♀. Head almost entirely fuscous; tegulæ, pro- and mesothorax with black bars; abdomen brown; fore wing with the basal half almost wholly suffused with purple-grey, its outer edge bent outwards at median nervure, the antemedial line defined by whitish on inner side, the terminal area darker. Hind wing wholly suffused with brown, the cilia white with a brown line at base; the underside tinged with brown and with indistinct curved postmedial line from costa to vein 4.

Hab. Brazil, Itaparica (*Meade-Waldo*), 1 ♀; Paraguay, Sapucay (*Foster*), 1 ♀; Argentina, Goya (*Perrens*), 1 ♂, 1 ♀ type. *Exp.* 16–20 millim.

6046. Tarachidia tenuicula. (Plate CLXIX. figs. 30♂, 31♀.)

Taeniocampa tenuicula, Morr. Proc. Bost. Soc. N. H. xvii. p. 218 (1874); Smith, Cat. Noct. N. Am. p. 299.

Acontia phaeolisca, Druce, Biol. Centr.-Am., Het. i. p. 396. pl. 28. f. 16 (1889).

♂. Head and thorax white; palpi at tips and the antennæ ringed with white; frons with lateral brown marks; fore tibiæ and the tarsi brown ringed with white; abdomen white dorsally tinged with ochreous brown. Fore wing creamy white; subbasal line represented by blackish points on costa and median nervure,

the antemedial line by double blackish bars from costa; orbicular a minute black point; the reniform small, round, with greyish centre defined by black; an oblique dark mark from middle of costa and a sinuous black line from cell to inner margin with a brown band beyond it; postmedial line represented by a dark point on costa and an indistinct line from below costa, obliquely excurved to lower angle of cell, then sinuous to inner margin; postmedial area purple-grey with a white patch on costa; subterminal line slight, white with blackish patches before it defined on inner side by traces of a white line, excurved below vein 7 and at middle and bent outwards to tornus; terminal area brown; a terminal series of black points defined on inner side by white; cilia brown with white patch above tornus and some white at tips below apex. Hind wing semihyaline white, the termen suffused with brown except towards tornus; the underside white with faint brown marks on costa beyond middle and at apex.

♀. Fore wing with nearly erect black antemedial line from cell to inner margin with purple-grey band beyond it before the medial band, the orbicular a small spot; hind wing suffused with brown especially towards termen.

Hab. U.S.A., Texas, 1 ♂, 1 ♀, San Antonio, 1 ♀, Arizona, Prescott (*Oslar*), 3 ♂, 1 ♀: Mexico, N. Sonora (*Morrison*), 1 ♀ type *phecolisca*, Guerrero (*H. H. Smith*), 1 ♂, 1 ♀, Durango (*Becker*), 1 ♀, Godman-Salvin Coll.; Colombia, Sta. Marta (*Bouchard*), 1 ♂, 2 ♀. *Exp.* 18–20 millim.

6047. Tarachidia candefacta. (Plate CLXIX. fig. 32.)

Phytometra minuta, Haw. Brit. Lep. p. 265 (1809), nec Hübn.; Wood, Ind. Ent. p. 74, pl. 17. f. 423.
Tarache candefacta, Hübn. Zutr. iii. p. 39, ff. 587–8 (1827); Smith, Cat. Noct. N. Am. p. 299.
Micra haworthana, Westw. Brit. Moths, i. p. 243, pl. 53. f. 20 (1851); Humphreys, Brit. Moths, p. 73, pl. 29. f. 11.
Acontia debilis, Wlk. xii. 786 (1857); Druce, Biol. Centr.-Am., Het. i. p. 305.

Head and thorax pure white; palpi at tips, frons, and antennæ brownish; fore tibiæ and the tarsi brownish ringed with white; abdomen white dorsally tinged with grey. Fore wing white; the costal edge tinged with fuscous; a subbasal fuscous point in cell; a more or less distinct oblique antemedial line or band from cell to inner margin; orbicular represented by a slight blackish point; an olive-brown medial band, angled outwards and yellowish in cell, then oblique; a large white patch on postmedial costal area defined by olive below and touching the reniform, which is grey defined by white, small, elliptical; a dark postmedial point on costa; terminal area leaden grey; subterminal line white defined on inner side by olive, excurved below vein 7 and at middle, then incurved and bent outwards to tornus; a terminal series of small black spots slightly

defined on inner side by white; cilia grey with whitish patches below apex and at middle. Hind wing white, the costal and terminal areas tinged with brown, in female more uniformly tinged with brown; cilia white tinged with brown at base. Underside of fore wing white with some brown on costa and inner area; hind wing white.

Ab. 1. Fore wing without any grey on terminal area except just beyond the medial olive band from cell to inner margin; reniform filled in with white.

Hab. Canada; U.S.A., Massachusetts (*Packard*), 3 ♂, Beverley (*Burg*), 2 ♂, 1 ♀, New York (*Schlegel, Doubleday, Grote*), 4 ♂, 1 ♀, Garrison (*Cockerell*), 3 ♀, Illinois, 1 ♀, Florida, St. John's Bluff (*Doubleday*), 2 ♂ type *debilis*, Enterprise, 1 ♀, Kansas, Texas, Dallas (*Boll*), 2 ♂, 2 ♀, San Antonio, 1 ♀, Washington (*Walsingham*), 3 ♂, Colorado, Boulder (*Cockerell*), 2 ♂, California, Mendocino Co. (*Walsingham*), 2 ♂, 2 ♀, Colusa Co. (*Walsingham*), 6 ♂, 1 ♀, New Mexico, Roswell (*Cockerell*), 1 ♂, Arizona, Phœnix (*Kunzé*), 1 ♀; Mexico, N. Sonora (*Morrison*), 1 ♀, Presidio (*Forrer*), 1 ♀, Godman-Salvin Coll. *Exp.* 22–26 millim.

Larva. Coquillett, Papilio, iii. p. 84.

Green with sixteen or eighteen waved black and white lines or with twelve white lines; a white stigmatal stripe; ventral surface green with seven or eight white lines; head vertically striped with alternating white and green lines. Food-plant: *Ambrosia artemisiæfolia*. 7.

*6048. Tarachidia neomexicana. (Plate CLXX. fig. 1.)

Acontia neomexicana, Smith, Trans. Am. Ent. Soc. xxvii. p. 81 (1900); Dyar, Cat. Lep. N. Am. p. 215.

♂. Head, thorax, and abdomen white. Fore wing creamy white; traces of a yellow antemedial line; orbicular a black point; reniform grey with pale centre, round, medial shade yellow, oblique from costa to median nervure, then inwardly oblique and forming the inner edge of an oblique grey shade from apex to inner margin beyond middle, expanding on inner margin to the subterminal line; postmedial line represented by a yellow patch beyond the reniform, fine, violaceous and irregular on the grey shade; postmedial area yellowish, on inner area tinged with violaceous; subterminal line broad, white, irregular; terminal area grey; a terminal series of black points. Hind wing white with narrow fuscous terminal band; the underside white with the costal area yellow.

Hab. U.S.A., Texas (*Belfrage*). *Exp.* 20 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

6049. Tarachidia virginalis. (Plate CLXX. fig. 2.)

Tarache virginalis, Grote, Can. Ent. xiii. p. 15 (1881); Smith, Cat. Noct. N. Am. p. 300.

Head, thorax, and abdomen white, the last faintly tinged with brown; palpi at tips, a bar across frons, and antennæ rufous; fore tibiæ and the tarsi rufous slightly ringed with white. Fore wing silvery white, the terminal half with a faint yellowish tinge; a fulvous-yellow medial shade: reniform olive-brown with white annulus, elliptical; postmedial line a diffused olive-brown and yellow shade, incurved below vein 5 to lower edge of reniform, then approximated to the medial shade and with some yellow beyond it; a terminal series of slight fuscous points. Hind wing white; a terminal brown band from apex to vein 2 expanding at apex; cilia brownish at base towards apex. Underside of fore wing brown, the costa and inner area whitish, slight whitish streaks in interspaces of terminal area; hind wing wholly white.

Hab. U.S.A., Texas, Bastrop Co., 1 ♀ type, Colorado, Denver, 1 ♂, 1 ♀, Arizona. *Exp.* 26–30 millim.

6050. Tarachidia binocula. (Plate CLXX. fig. 3.)

Tarache binocula, Grote, Can. Ent. vii. p. 224 (1875); Smith, Cat. Noct. N. Am. p. 300.

Head and thorax creamy white; palpi except at base and antennæ brownish; fore and mid legs brownish, the tarsi brown ringed with white; abdomen white dorsally tinged with grey, the anal tuft tinged with ochreous. Fore wing creamy white; an olive-yellow medial band with a large semicircular white patch beyond it on costa defined by olive-yellow below touching the small elliptical leaden-grey reniform which is defined by white; a leaden-grey band beyond these white and olive-yellow markings with the very slight minutely waved white postmedial line on it from vein 6 to inner margin, incurved below vein 4 and closely approximated to the white subterminal line, which is obscurely defined by olive marks on inner side and greyish suffusion on outer, excurved below vein 7 and at middle, then incurved; a slight dark terminal line; cilia white with an olive-brown line at base. Hind wing white, the costa towards apex and the termen to vein 2 or the apex only tinged with brown. Underside of fore wing brown with the costa and inner area white; hind wing white with a brownish mark on costa towards apex.

Hab. U.S.A., Kansas, Texas, 2 ♂, 1 ♀ type, Arizona. *Exp.* 22–28 millim.

6051. Tarachidia tenuescens. (Plate CLXX. fig. 4.)

Acontia tenuescens, Smith, J. N.Y. Ent. Soc. x. p. 53 (1902); Dyar, Cat. Lep. N. Am. p. 215.

♀. Head, thorax, and abdomen pure white; palpi brown towards tips; frons with brown bars; antennæ brown; fore and mid tibiæ

suffused with brown, the tarsi brown ringed with white. Fore wing silvery white; a slight yellowish spot on costa above end of cell; reniform olive-brown with fine white annulus, round, confluent with an incurved olive-brown band irrorated with silvery scales, from vein 6 beyond the cell, where it is produced to a point, to inner margin; a terminal series of minute black points; cilia olive-brown at apex. Hind wing white, the termen suffused with olive-brown from apex to discal fold. Underside of fore wing olive-brown, the costa white with some brown on costal edge towards base, the inner area white, some slight white streaks in interspaces of terminal area; hind wing wholly white.

Hab. U.S.A., Florida, L. Worth, 1 ♀ co-type. *Exp.* 28 millim.

6052. Tarachidia huita. (Plate CLXX. fig. 5.)

Acontia huita, Smith, Trans. Am. Ent. Soc. xxix. p. 213 (1903).

♀. Head and thorax white, the latter with the dorsum suffused with olive; palpi at tips and antennæ ochreous brown; fore tibiæ and the tarsi ochreous brown ringed with white; abdomen ochreous white with diffused dorsal brownish bands. Fore wing white; a small grey spot at middle of costa with some yellow below it and some yellow in lower extremity of cell confluent with a conical grey patch on inner area with its edges tinged with olive, extending on inner margin from middle to tornus; terminal area suffused with grey, with some olive-yellow suffusion on its inner edge from below costa to vein 4; a punctiform dark terminal line with white line before it; cilia grey at base, white at tips. Hind wing white, the terminal area tinged with brown; cilia white, brown at base; the underside white with brown terminal line.

Hab. U.S.A., Texas, Kerrville, Arizona, Huachuca Mts., 1 ♀ co-type. *Exp.* 22 millim.

*6053. Tarachidia semibrunnea. (Plate CLXX. fig. 6.)

Tarachidia semibrunnea, Druce, A. M. N. H. (8) iii. p. 462 (1909).

♂. Head, thorax, and abdomen pale ochreous, the head and tegulæ thickly irrorated with dark red-brown; palpi at tips and antennæ brown; fore and mid tibiæ and tarsi dark brown ringed with whitish. Fore wing with the basal half ochreous white, the basal area irrorated with brown towards costa; a slightly curved antemedial dark line, interrupted in cell; terminal half dark reddish brown slightly irrorated with whitish, and with blackish line on its inner edge slightly excurved in cell; a round black discoidal annulus with some ochreous white on its outer edge; postmedial line very indistinct, with an ochreous white patch on its outer side on costal area, excurved from below costa to vein 4, then incurved, sinuous and defined on outer side by ochreous white scales; subterminal line indistinct, dark, diffused, with ochreous white striga

at costa, below vein 3 incurved and defined on outer side by ochreous white; a slight dark terminal line. Hind wing ochreous white, the termen suffused with brown; cilia brownish at base, white at tips; the underside uniform ochreous white.

Hab. Paraguay (*Reeve*), type † ♂ in Coll. Druce. *Exp.* 18 millim.

6054. Tarachidia cuta. (Plate CLXX. fig. 7.)

Acontia cuta, Smith, J. N.Y. Ent. Soc. xiii. p. 211 (1905).

♂. Head and thorax pure white; palpi at tips and antennæ brownish; fore tibiæ and the tarsi brownish ringed with white; abdomen white tinged with ochreous. Fore wing with the basal half pure white, the terminal half red-brown tinged with grey and irrorated with black, edged on inner side by a black line angled outwards in cell; reniform indistinct, small, greyish, elliptical; a large semicircular white patch on costa towards apex, touching the reniform; a terminal series of slight blackish points; cilia brown with a white patch at middle. Hind wing white slightly tinged with ochreous; cilia pure white.

Hab. U.S.A., New Mexico, Roswell (*Cockerell*), 1 ♂, Arizona. *Exp.* 22 millim.

6055. Tarachidia alata. (Plate CLXX. fig. 8.)

Acontia alata, Smith, J. N.Y. Ent. Soc. xiii. p. 210 (1905).

Head and thorax white; palpi at tips and antennæ brownish; upper edge of patagia and streaks on thorax ochreous brown; tarsi with slight brownish rings; abdomen ochreous brown, ventrally white. Fore wing ochreous brown, the costal area white to discal fold, narrowing to a point before apex; a white fascia above vein 1 from base to below end of cell, where it is met by an oblique narrow white band from the white costal area, thus enclosing a triangular ochreous brown patch; a fine white terminal line; cilia ochreous brown mixed with some white at base, white at tips. Hind wing white tinged with ochreous brown; cilia white with a pale diffused ochreous brown line near base; the underside ochreous white.

Hab. U.S.A., Arizona, Baboquavaria Mts. (*Poling*), 1 ♂, 1 ♀ co-type. *Exp.* 20 millim.

*6056. ? Tarachidia jativa. (Plate CLXX. fig. 9.)

Thalpochares jativa, Barnes, Can. Ent. xxxvii. p. 213 (1905).

♂. Head, thorax, and abdomen pale pinkish red; palpi yellowish white tinged with fuscous on outer side; pectus, legs, and ventral surface of abdomen yellowish white. Fore wing pale pinkish red; an obliquely curved yellowish-white band from base of costa to one-third of inner margin; a broad medial yellowish-white band.

expanding slightly at inner margin and broadly at costa where there is some pinkish suffusion on its middle, the edges of the band defined by slightly darker scaling; cilia pinker at base. Hind wing pale yellowish faintly tinged with pink especially on terminal area; a faint incomplete fuscous medial shade; cilia pale at tips. Underside of fore wing yellowish, the costal and terminal areas suffused with pink and the discal area with fuscous; hind wing yellowish, the costal area and the terminal area slightly tinged with pink.

Hab. U.S.A., Arizona. *Exp.* 20 millim. This species is unknown to me; figured from a drawing from type in Coll. W. Barnes.

6057. Tarachidia perita. (Plate CLXX. fig. 10.)

Thalpochares perita, Grote, Can. Ent. xiv. p. 171 (1882); Smith, Cat. Noct. N. Am. p. 314.
Orobena subcitrinalis, Hulst, Trans. Am. Ent. Soc. xiii. p. 157 (1886); Smith, Cat. Noct. N. Am. p. 304.

♂. Head and tegulæ white slightly tinged with yellow; palpi at tips and antennæ brown; thorax and abdomen pale orange-yellow; pectus and ventral surface of abdomen white tinged with yellow, the legs suffused with brown. Fore wing pale orange-yellow; a narrow oblique greyish fuscous band defined on inner side by a white line from vein 6 beyond the cell to inner margin just beyond middle; a fine white terminal line not quite reaching apex. Hind wing white tinged with golden ochreous, the cilia whiter.

Hab. U.S.A., Arizona (*Poling*), 1 ♂. *Exp.* 20 millim.

6058. Tarachidia venustula. (Plate CLXX. fig. 11.)

Acontia venustula, Wlk. xxxiii. 783 (1865).
Acontia discoidalis, Wlk. xxxv. 1962 (1866).
Thalpochares fortunata, Grote, Can. Ent. xiv. p. 171 (1882); Smith, Cat. Noct. N. Am. p. 314.

♀. Head and tegulæ whitish tinged with reddish ochreous; thorax reddish ochreous; pectus and legs white, the tarsi brownish ringed with white; abdomen ochreous tinged with rufous, the ventral surface white. Fore wing ochreous suffused with rufous; the costal edge brownish except towards apex; a bluish white band irrorated with brown and edged with white, bent inwards from discocellulars to near middle of cell, then oblique to inner margin; a fine whitish terminal line except towards apex and tornus. Hind wing ochreous whitish suffused with brown especially on terminal area; cilia whitish tinged with ochreous at base; the underside whitish, the costal and terminal areas tinged with ochreous.

Hab. U.S.A., Arizona, Pinal Mts. (*Kunzé*), 1 ♀. Huachuca Mts., 1 ♀; Haiti (*Tweedie*), 2 ♀ type and type *discoidalis*. *Exp.* 20 millim.

6059. Tarachidia clausula. (Plate CLXX. fig. 12.)

Xanthoptera clausula, Grote, Papilio, ii. p. 186 (1882); Smith, Cat. Noct. N. Am. p. 303.

♂. Head and tegulæ white slightly mixed with brown, the palpi at tips and antennæ brown; thorax white tinged with yellow; pectus and legs white, the latter irrorated with brown, the tarsi brown ringed with white; abdomen ochreous brown, ventrally whitish. Fore wing with the basal half yellow, the terminal half red-brown thickly irrorated with white and defined on inner side by a slightly incurved white line; a slight white terminal line. Hind wing whitish suffused with brown; cilia whiter at tips; the underside brownish white, the costal area irrorated with brown.

Hab. U.S.A., Arizona, Yuma Co., Colorado desert, 1 ♂. *Exp.* 18 millim.

6060. Tarachidia semiflava. (Plate CLXX. fig. 13.)

Xanthoptera semiflava, Guen. Noct. ii. p. 241 (1852); Smith, Cat. Noct. N. Am. p. 303.

Head and thorax deep yellow; palpi white tinged with brown; antennæ brown; pectus, legs, and abdomen white irrorated with brown. Fore wing with the basal half deep yellow bounded by an oblique slightly sinuous black line from costa beyond middle to inner margin before middle, the costal edge brownish; the terminal half red-brown thickly irrorated with grey. Hind wing whitish irrorated and suffused with red-brown, rather darker on terminal area; the underside white irrorated with brown.

Hab. U.S.A., Southern States (*Doubleday*, *Grote*), 5 ♂, Texas, Kerrville, 1 ♂, Colorado, Golden (*Oslar*), 3 ♂, 1 ♀. *Exp.* 22–30 millim.

6061. Tarachidia flavibasis.

Tarachidia flavibasis, Hmpsn. Trans. Ent. Soc. 1898, p. 248, pl. 17. f. 3 (♂). *Tarachidia holophæa*, Hmpsn. Trans. Ent. Soc. 1898, p. 248, pl. 17. f. 17 (♀).

♂. Head, tegulæ, pectus, legs, and abdomen red-brown; thorax olive-yellow. Fore wing with the basal half olive-yellow with oblique outer edge, the terminal half red-brown slightly irrorated

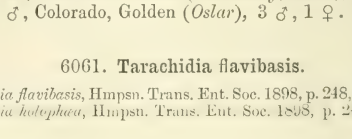

Fig. 197.—*Tarachidia flavibasis*, ♂. ⅔.

with greyish. Hind wing red-brown, the cilia whitish at tips. Underside of both wings red-brown slightly tinged with grey.

♀. Thorax red-brown tinged with purple-grey. Fore wing red-brown irrorated with purplish grey and a few olive-yellow scales, traces of oblique medial and subterminal lines. Hind wing brown tinged with grey, the cilia whitish at tips; the underside whitish irrorated with brown.

Hab. Grenadines, Union I. (*H. H. Smith*), 1 ♂, 1 ♀, type and type *holophœa*. *Exp.* 20 millim.

6062. Tarachidia fumata. (Plate CLXX. fig. 14.)

Spragueia fumata, Smith, Can. Ent. xxxvii. p. 259 (1905).

Head, thorax, and abdomen black-brown with a metallic gloss; palpi at base and pectus in front white. Fore wing uniform black-brown with a metallic gloss and slight grey irroration. Hind wing uniform dark brown with a slight gloss.

Hab. U.S.A., Nevada, Verdi (*Vachell*), 1 ♂, California, Walter's Station, 1 ♀. *Exp.* 22 millim.

Genus **STYLORACHE**, nov.

Type, *S. albida*.

Proboscis fully developed; palpi upturned, slender, the 2nd joint not reaching middle of frons, the 3rd rather long; frons with conical prominence with acute corneous point at extremity; eyes large, round; antennæ of male somewhat laminate and almost simple; thorax clothed almost entirely with scales and without crests; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 stalked; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

6063. Stylorache albida, n. sp.

♂. Head, thorax, and abdomen white; palpi except at base and antennæ brownish. Fore wing pure white; slight antemedial,

Fig. 198.—*Stylorache albida*, ♂. ½.

medial, postmedial, and subterminal brown striæ from costa; a large semicircular brown patch on inner margin from middle to near tornus tinged with purple-grey and with traces of the incurved

postmedial and white subterminal lines on it; a black point on termen above tornus. Hind wing pure white.

Hab. Argentina, Gran Chaco, Florenzia (*Wagner*), 1 ♂ type. *Exp.* 24 millim.

Genus CONACONTIA.

Type.

Therasea, Grote, Abh. Nat. Ver. Brem. xiv. p. 126 (1895), non descr. nec *Therasia*, Hutton, Moll. 1884 ..... *angustipennis.*
Conacontia, Smith, Trans. Am. Ent. Soc. xxvii. p. 55 (1900). *flavicosta.*

Proboscis fully developed; palpi obliquely upturned, slenderly scaled, the 2nd joint hardly reaching middle of frons, the 3rd short; frons with large rather pointed conical prominence with corneous plate below it produced to a point in front; eyes large, round; antennæ of male almost simple; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with depressed crest; tibiæ smoothly scaled; abdomen without crests. Fore wing long and narrow, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 9 from 10 anastomosing with 8 to form a longitudinally narrow areole; 11 from cell. Hind wing with veins 3, 4 stalked; 5 nearly fully developed from just above lower angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

A. Fore wing with the orbicular absent.
  a. Fore wing with the white costal area expanding at middle into a triangular patch extending to vein 1... *huacucha.*
  b. Fore wing with the white costal area not expanding into a triangular patch at middle ..... *flavicosta.*
B. Fore wing with the orbicular present.
  a. Fore wing with the orbicular defined by white and separated from the dark inner area ..... *orba.*
  b. Fore wing with the orbicular confluent with the dark inner area ..... *angustipennis.*

6064. Conacontia huachuca. (Plate CLXX. fig. 15.)

Conacontia huachuca, Smith, Trans. Am. Ent. Soc. xxix. p. 211 (1903).

♂. Head grey with whitish band above frons; palpi white, grey at tips; thorax grey, the tegulæ except at tips and shoulders white; pectus and legs white, the fore legs and mid tibiæ and tarsi tinged with brown; abdomen white, dorsally tinged with ochreous. Fore wing creamy white; an antemedial olive-brown and leaden grey patch on inner area, traversed by the slight whitish antemedial line excurved above inner margin, and conjoined to a conical postmedial patch extending to lower angle of cell and with three small black and whitish lunules on it representing the incurved part of postmedial line, a slight white line near its outer edge forking above; a rather wedge-shaped grey patch beyond the cell with some white striæ on it, conjoined at extremity to an apical olive-brown and greyish patch; subterminal line white, traversing the apical patch, excurved below vein 7 and with blackish mark before it, then incurved on the wedge-shaped patch and with slight black mark

before it; a terminal series of small black spots except towards tornus, with some grey before them at middle; cilia olive-brown and grey with white patches below apex and at middle, the tips with white mixed except towards apex. Hind wing creamy white.

Hab. U.S.A., Arizona, Huachuca Mts., 1 ♂ co-type. *Exp.* 32 millim.

6065. Conacontia flavicosta.

Conacontia flavicosta, Smith, Trans. Am. Ent. Soc. xxvii. p. 58 (1900); Dyar, Cat. Lep. N. Am. p. 213.

♂. Head and thorax purplish grey-brown, the back of head and tegulæ at base white; palpi white except at tips; pectus and legs white, the fore and mid tibiæ and tarsi tinged with red-brown; abdomen white dorsally tinged with brown, the anal tuft ochreous. Fore wing with the costal half except on terminal area white tinged with yellow extending to just below the cell and with its lower edge sinuous, the inner half and most of terminal area silvery purple-grey mixed with red-brown; antemedial line indistinct, blackish, erect on the dark area, sometimes indicated also at costa;

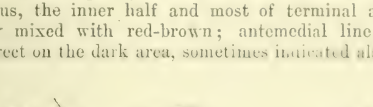

Fig. 199.—*Conacontia flavicosta*, ♂. ¾.

a slight spur from the dark area in lower extremity of cell; a wedge-shaped yellowish white postmedial patch from costa, more or less completely defined on inner side by an oblique dark striga from costa to the dark area beyond the cell, the minutely dentate more or less interrupted black postmedial line arising from its apex and strongly incurved below vein 4; subterminal line yellowish white defined on inner side by a slight black mark below vein 7, excurved below vein 7 and at middle, then bent inwards and forming a diffused patch; a terminal series of black points except towards tornus; cilia leaden grey and brown intersected with white below apex and with some white at base at middle. Hind wing whitish suffused with brown, rather darker towards termen; cilia white with a brown line at base; the underside uniform creamy white.

This may be an aberration of *C. angustipennis*.

Hab. U.S.A., Montana, Black Hills, Colorado, 1 ♂, Durango (*Oslar*), 2 ♂, New Mexico, Hot Springs. *Exp.* 32 millim.

*6066. Conacontia orba. (Plate CLXX. fig. 16.)

Conacontia orba, Smith, Trans. Am. Ent. Soc. xxix. p. 210 (1903).

♀. Head and thorax creamy white with a slight fuscous tinge on vertices; abdomen yellow. Fore wing with the costal area creamy white to near middle of wing, the inner area fuscous grey to subterminal line leaving the tornal area white, the postmedial area mostly white except at costa, the terminal area mottled with golden brown; antemedial line represented by a grey band on the white area; orbicular a distinct round grey spot; reniform a large round grey spot incompletely defined by white and confluent with a dark spot above it on costa and the dark inner area; an obscure medial golden brown band from the dark costal spot to inner margin; postmedial line represented by a dark band from costa, then interrupted and reappearing as a blackish edge to the golden brown band on inner area; subterminal line represented by a white striga between the dark postmedial patch on costa and dark apical patch; a terminal series of black striæ; cilia fuscous intersected with creamy white below apex and at middle and white at tornus. Hind wing yellowish white tinged with fuscous; the underside yellowish white, the terminal area tinged with fuscous.

Hab. U.S.A., Arizona, Huachuca Mts. *Exp.* 21–26 millim. This species is unknown to me; figured from a drawing from type in Coll. J. B. Smith.

6067. Conacontia angustipennis. (Plate CLXX. fig. 17.)

Tarache angustipennis, Grote, Proc. Acad. Nat. Sci. Phil. p. 426 (1875); Smith, Cat. Noct. N. Am. p. 299.

Head and thorax purplish grey-brown, the back of head and base of tegulæ white; palpi except at tips and lower part of frontal prominence white; pectus and legs white, the fore and mid tibiæ and tarsi tinged with red-brown; abdomen white dorsally tinged with brown, the anal tuft ochreous. Fore wing silvery purple-grey mixed with red-brown; a yellowish white fascia in basal half of cell sometimes extending to costa and to just below cell and confluent with an irregular patch from middle of costa to before the reniform, or completely separated from it by the antemedial line, which is represented by a brown spot on costa and an indistinct oblique sinuous dark line from middle of cell to inner margin, towards which it tends to become double; orbicular confluent with the dark inner area; reniform brown with some white in lower part and defined by yellowish white, confluent with the patch from middle of costa; an indistinct oblique medial dark line from cell to inner margin; a wedge-shaped postmedial white patch from costa with the minutely dentate black postmedial line arising from its apex and strongly incurved below vein 4; subterminal line yellowish white, diffused on outer side except towards costa where it

is somewhat dentate, and with a black mark before it below vein 7, excurved below vein 7 and at middle, then incurved and oblique to tornus; a terminal series of black points except towards tornus, slightly defined on inner side by white; cilia leaden grey and brown intersected with white below apex and with some white at base at middle. Hind wing whitish suffused with brown, rather darker towards termen; cilia white with a brown line at base, the underside uniform creamy white.

Hab. CANADA, Alberta, Calgary (*Wolley-Dod*), 3 ♀; U.S.A., S. Dakota, Pierre, Texas, Bosque Co. (*Belfrage*), 1 ♀ type, Colorado (*Cockerell*), 2 ♂, Durango (*Oslar*), 2 ♂, Denver (*Oslar*), 2 ♂, 2 ♀, Glenwood Springs, Ft. Collins, California, New Mexico, Las Vegas (*Cockerell*), 1 ♂, Roswell (*Cockerell*), 2 ♀, Sta. Fé (*Cockerell*), 1 ♀. *Exp.* 26–30 millim.

Genus TRICHOTARACHE.

	Type.
Trichotarache, Grote, Can. Ent. vii. p. 48 (1875)	*assimilis.*

Proboscis fully developed; palpi porrect, extending about the length of head and clothed with long hair; frons with rounded prominence with corneous plate below it; eyes small, elliptical; antennæ of male somewhat laminate and almost simple; thorax clothed with rough hair and scales mixed, the prothorax without crest, the metathorax with decumbent crest; tibiæ moderately fringed with hair; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 stalked; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

6068. Trichotarache assimilis.

Trichotarache assimilis, Grote, Can. Ent. vii. p. 48 (1875); Smith, Cat. Noct. N. Am. p. 298.

Head, thorax, and abdomen black-brown with a few greyish scales, the tibiæ and tarsi ringed with whitish. Fore wing black-brown, the terminal area grey-white: a slight grey streak on base

Fig. 200.—*Trichotarache assimilis*, ♂. ♀

of vein 1; antemedial line double, greyish, hardly traceable except at inner margin, oblique, waved; an irregular oblique grey-white patch from middle of costa with the black orbicular point on it and the faintly defined elliptical reniform on its outer edge; postmedial

line represented by two oblique grey-white bars from costa, then by a series of black points incurved below vein 4; subterminal line represented by a series of small dentate black marks on its inner edge, excurved below vein 7 and at middle and bent outwards to tornus; a terminal series of black points; cilia brownish at tips below apex. Hind wing dark red-brown with a faint yellowish patch on disk; cilia brown at base, whitish at tips; the underside yellowish white, the inner and terminal areas suffused with brown, some brown streaks from base, and a postmedial bar from costa.

Hab. U.S.A., California, 1 ♂, 1 ♀ type. *Exp.* 32 millim.

Genus **CARDIOSACE**, nov.

Type, *C. sphendonistis.*

Proboscis fully developed; palpi obliquely porrect, extending about the length of head, the 2nd joint broadly fringed with scales below, the 3rd short; frons with small heart-shaped corneous prominence with raised edges, its lower edge produced to a point, a curved corneous plate below it; eyes large, round; antennæ of male somewhat laminate and almost simple; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with depressed crest of large scales; tibiæ moderately fringed with hair; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 almost fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

A. Hind wing yellow or orange.
  a. Fore wing with the costal area whitish to subterminal line.
    a^1. Fore wing with the inner basal area dark ..... *bidentata.*
    b^1. Fore wing with the inner basal area whitish.
      a^2. Fore wing with the inner area grey-brown to near base..... *parilis.*
      b^2. Fore wing with the inner area red-brown to middle only ..... *olivescens.*
  b. Fore wing with the medial part of costal area dark with white patch beyond it ..... *triphænoides.*
B. Hind wing whitish, in female suffused with brown.
  a. Fore wing without medial and postmedial dark spots on costa ..... *natalis.*
  b. Fore wing with medial and postmedial dark spots on costa ..... *sphendonistis.*

6069. **Cardiosace bidentata.** (Plate CLXX. fig. 18.)

Tarache bidentata, Hmpsn. Ann. S. Afr. Mus. ii. p. 389 (1902).

♂. Head and tegulæ yellow tinged with rufous; antennæ and thorax chocolate-brown; pectus and legs pale yellow, the fore tibiæ and fore and mid tarsi brown ringed with white; abdomen yellow, dorsally suffused with chocolate-brown. Fore wing deep chocolate-brown, the costal area yellow edged with white below, narrowing to a point at apex; antemedial line represented by a slight black

spot on inner margin; orbicular and reniform forming slight white indentations of the dark area, the former rounded, the latter lunulate; postmedial line slight, black, arising at vein 6 where the yellow costal area contracts, very minutely dentate and strongly incurved below vein 4; subterminal line represented by a series of slight black points from apex to vein 4; cilia black-brown. Hind wing golden yellow, the termen tinged with red-brown from apex to vein 2 or to tornus; cilia whitish at tips; the underside uniform yellow.

♀. Hind wing with the terminal area more broadly suffused with brown.

Hab. Mashonaland, Salisbury (*Marshall, Dobbie*), 4 ♂, 5 ♀ type. *Exp.* 28 millim.

6070. Cardiosace parilis. (Plate CLXX. fig. 19.)

Acontia perilis, Wllgrn. Anteckn. i. Zool. 1, p. 60 (1856).
Acontia parilis, Wllgrn. Kongl. Svensk. Vet.-Akad. Handl. v. (3) p. 69 (1864).
Acontia guttistrigata, Wlk. xxxiii. 784 (1865).
Acontia rectangularis, Auriv. Œfv. Ak. Förh. xxxvi. (7) p. 64 (1879).

♂. Head and thorax pure white, the metathorax mostly greyish black-brown; palpi yellow, brown at tips; frons yellow; antennæ brown; pectus and legs yellow; fore legs brown, the tarsi ringed with white; abdomen pale yellow, dorsally tinged with brown at base. Fore wing with the costal area pure white from inner margin near base to near apex, the rest of wing olive grey-brown with an irregular white patch on inner medial area, a bidentate white mark on base of veins 4, 3 and some white on termen; the costal edge olive-brown towards base; a subbasal grey spot in cell; antemedial line yellow and diffused on the white area, then indistinct and incurved; orbicular and reniform grey-black ringed with white, small, round, the latter with white striga in centre; postmedial line indistinct and yellow on the white area, then chocolate-brown, double and filled in with white towards inner margin, excurved to vein 4, then incurved; some chocolate-red at apex and some yellow at middle of terminal area; subterminal line formed of slight white marks towards apex, double and oblique towards tornus; a fine brown terminal line; cilia white with some chocolate-brown at apex, above middle and at tornus. Hind wing pale yellow, the apex sometimes slightly tinged with brown.

♀. Hind wing with the costa and termen more or less suffused with brown.

Ab. 1. ♂. Fore wing without any grey on outer edge of antemedial line on inner area.

Ab. 2. ♀. Fore wing without white patch on inner medial area.

Hab. Rhodesia, Bulawayo (*Eyles*), 1 ♂; Transvaal, Piet Retief (*Crawshay*), 2 ♂, 2 ♀, Waterval-onder (*Janse*), 1 ♂, Pretoria (*Janse*), 1 ♂, Johannesburg (*Rose*), 1 ♂; Natal, Weenen, 1 ♂,

Estcourt (*Hutchinson*), 1 ♂, Durban (*Leigh*), 1 ♂; Basutoland, Maseru (*Crawshay*), 1 ♀; Cape Colony, Grahamstown, 1 ♀, Transkei (*Miss F. Barrett*), 3 ♂, 1 ♀. *Exp.* 24–30 millim. Type † *rectangularis* in Mus. Stockholm.

6071. **Cardiosace olivescens**, n. sp. (Plate CLXX. fig. 20.)

♂. Head and thorax yellowish white; palpi olive-brown at tips; frons with olive-brown bar above; vertex of thorax suffused with olive-brown; tarsi blackish ringed with white; abdomen fulvous yellow with slight dark dorsal bands on basal segments, the ventral surface yellowish white. Fore wing yellowish white; some pale olive marks on basal costal area; a pale olive antemedial band, oblique from below costa to inner margin; orbicular a small round olive spot, the reniform a faint olive annulus; terminal area olive-green and deep rufous, its inner edge oblique from costa to just beyond lower angle of cell, then bent inwards to middle of wing and erect to inner margin; postmedial line represented by a slight dark streak on costa connected by an oblique olive band with the dark terminal area and an indistinct red-brown line from vein 6, incurved below vein 4; subterminal line represented by slight white irroration and an oblique sinuous yellowish white bar from vein 3 to tornus; a terminal series of black points defined on inner side by yellowish white; cilia with yellowish patches below apex and at middle and a rufous line through them. Hind wing pale yellow, the termen tinged with rufous from apex to vein 2; cilia with a brown line near base and white tips; the underside yellow with brown discoidal point and fine brown terminal line.

Hab. Transvaal, Waterberg Distr. (*Swierstra*), 1 ♂ type. *Exp.* 22 millim.

6072. **Cardiosace triphænoides**. (Plate CLXX. figs. 21 ♂, 22 ♀.)

Acontia trichænoides, Wllgrn. Anteckn. i. Zool. 1, p. 59 (1856).
Acontia triphænoides, Wllgrn. Kongl. Svensk. Vet.-Akad. Handl. v. (3) p. 67 (1864).
Acontia liturifera, Wlk. xxxiii. 784 (1865).
Acontia trimenii, Wllgrn. Œfv. Ak. Förh. 1875, p. 110.

♂. Head fuscous brown mixed with some white; palpi except at tips and lower part of frons white; thorax white with some brown scales; fore and hind tibiæ and tarsi banded black and white; abdomen white tinged with yellow except at base. Fore wing with the basal half white; subbasal line represented by slight dark striæ from costa and in cell with a black bar beyond it in cell; antemedial line double with dark bars from costa, then obsolescent, oblique, waved; terminal half red-brown with an olive tinge shading to purple-grey towards termen, its inner edge oblique from costa to lower angle of cell, then incurved; reniform indistinctly defined by silvery grey and some black at sides, elliptical; a quadrate postmedial white patch from costa to vein 6, its inner edge

slightly indented, the postmedial line arising from it, black, minutely waved, strongly incurved below vein 4 and with some silvery blue on it at submedian fold; a white point on costa before the subterminal line, which is white, interrupted, angled inwards below costa, excurved below vein 7, dentate at veins 4, 3, then incurved and bent outwards to tornus; a terminal series of black strice; cilia purple-grey tinged with rufous at base. Hind wing orange-yellow with terminal brown band from apex to vein 4; cilia yellowish white; the underside with brownish medial and postmedial bars from costa.

♀. Thorax with more brown; fore wing with the basal area largely suffused with brown, the dark terminal area extending to near antemedial line and with oblique sinuous inner edge; hind wing with the dark band extending to tornus leaving some orange on termen.

Hab. Mashonaland, Salisbury (*Marshall*), 1 ♂; Rhodesia, Bulawayo (*Eyles*), 1 ♀; Transvaal (*Marshall*), 1 ♂, Johannesburg (*Cooke*), 1 ♀, Groenvlei (*Janse*), 1 ♀; Natal, Newcastle, 1 ♀, Estcourt (*Hutchinson*), 1 ♂, 1 ♀; Orange R. Colony, Bloemfontein (*Eckersley*), 2 ♂, 6 ♀; Basutoland, Maseru (*Crawshay*), 1 ♀; Cape Colony, 1 ♀, Deelfontein (*Sloggett*), 1 ♂, 1 ♀, Amnshaw (*Miss F. Barrett*), 2 ♂, 1 ♀. *Exp.* 32–38 millim.

6073. Cardiosace natalis. (Plate CLXX. figs. 23 ♂, 24 ♀.)

Acontia natalis, Guen. Noct. ii. p. 217 (1852).
Acontia adulterina, Wllgrn. Anteckn. i. Zool. 1, p. 60 (1866); id. Kongl. Svensk. Vet.-Akad. Handl. v. (3) p. 69 (1864).
Acontia formosa, Butl. A. M. N. H. (4) xvi. p. 404 (1875).

♂. Head, tegulæ, and base of patagia white; palpi, frons, antennæ, and tips of patagia and vertex of thorax olive-green; legs tinged with brown; abdomen fulvous yellow, the ventral surface white. Fore wing white, the costa brown towards base; an antemedial olive-green and golden brown band, diffused on inner side; orbicular and reniform grey with white annuli, the former round, the latter elliptical, an olive patch between them in cell connected by a streak below the cell with the antemedial band; terminal area olive-green and rufous, its inner edge angled inwards at vein 6, indented by white streaks on bases of veins 4, 3, then incurved; an indistinct deep rufous subterminal line, strongly incurved below vein 4 and with patches of silvery grey beyond it below vein 6 and from vein 4 to inner margin; a terminal white line except towards tornus; cilia white with some rufous at tornus. Hind wing yellowish white, the costa and termen tinged with brown; the underside pale yellowish.

♀. Head, thorax, and abdomen wholly suffused with olive-brown; fore wing darker especially the terminal area; hind wing dark brown, the cilia with white mixed; the underside whitish

suffused with brown, with dark discoidal bar and indistinct curved postmedial line.

Hab. Transvaal, Pretoria (*Swierstra*), 1 ♀; Natal, Stanger (*Delvin*), 1 ♂, Estcourt (*Hutchinson*), 1 ♀, Durban (*Gooch*), 1 ♂ type *formosa*; Cape Colony, Pondoland, Nogeleni (*Swinny*), 1 ♂. *Exp.* ♂ 24, ♀ 26 millim.

6074. Cardiosace sphendonistis.

Tarache sphendonistis, Hmpsn. Ann. S. Afr. Mus. ii. p. 384 (1902).

♂. Head blackish tinged with grey; palpi white except at tips above; thorax white with some grey scales on patagia and metathorax; fore tibiæ and the tarsi banded with grey-black; abdomen white with narrow blackish dorsal bands, the anal tuft ochreous. Fore wing white; subbasal line grey, double, waved, from costa to submedian fold; antemedial line grey, double, waved, the lines expanding into patches at costa; orbicular and reniform with slight black annuli open below, the latter hoop-shaped; an oblique olive-grey mark from middle of costa; terminal area purple-grey shading to olive on inner side and towards apex; postmedial line represented by an oblique olive-grey mark from costa on the white area and an interrupted minutely waved black line on the purple area strongly incurved below vein 4; subterminal line represented by a slight white lunule with black spot before it below vein 7, and from

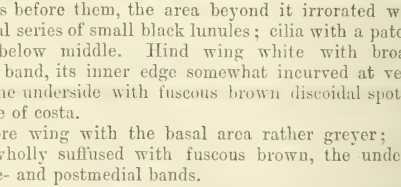

Fig. 201.—*Cardiosace sphendonistis*, ♂. ½.

vein 5 to inner margin by slight white lunules with small dentate red marks before them, the area beyond it irrorated with white; a terminal series of small black lunules; cilia with a patch of white at tips below middle. Hind wing white with broad fuscous terminal band, its inner edge somewhat incurved at vein 2; cilia white; the underside with fuscous brown discoidal spot and patch on middle of costa.

♀. Fore wing with the basal area rather greyer; hind wing almost wholly suffused with fuscous brown, the underside with dark ante- and postmedial bands.

Hab. Transvaal (*Pead*), 1 ♀; Orange R. Colony, Bloemfontein (*Eckersley, Wilson*), 1 ♂, 3 ♀; Natal, Estcourt (*Hutchinson*), 1 ♀ type, Charlestown, 1 ♀; Basutoland, Maseru (*Crawshay*), 1 ♀, Masite (*Crawshay*), 1 ♂. *Exp.* 34–38 millim.

Genus **PROCRIOSIS**, nov.

Type, *P. dileuca*.

Proboscis fully developed; palpi obliquely porrect, short; frons with large truncate conical prominence with raised edges and small process in centre, a corneous plate below it; eyes large, round; antennæ of female almost simple; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with depressed crest; tibiæ smoothly scaled; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

6075. Procriosis dileuca, n. sp.

♀. Head, thorax, and abdomen yellowish white mixed with grey-brown, the head rather darker; pectus and legs white, the tarsi brownish ringed with white, the ventral surface of abdomen white. Fore wing with the basal half yellowish white suffused with grey leaving a white patch beyond the antemedial line from cell to inner margin; the outer half olive-brown tinged with purplish grey; traces of a double subbasal line from costa to submedian fold and of a double waved antemedial line; a small white spot at upper angle of cell; a triangular postmedial yellowish white patch on costa, the very indistinct dark postmedial line

Fig. 202.—*Procriosis dileuca*, ♀. ½.

arising from its apex, strongly bent inwards below vein 4 and oblique to inner margin; faint traces of a pale subterminal line excurved below vein 7 and at middle, with a slight dark streak before it below costa and dark points at middle; a terminal series of slight dark points. Hind wing yellowish white almost wholly suffused with red-brown, the cilia yellowish white mixed with some red-brown; the underside yellowish white, a diffused antemedial red-brown band, discoidal point, diffused curved postmedial band, and diffused terminal band with rather dentate inner edge.

Hab. Br. E. Africa, Voi (*Betton*), 1 ♀ type. *Exp.* 24 millim.

Genus HOPLOTARACHE, nov.

Type, *H. mionides*.

Proboscis fully developed; palpi obliquely porrect, extending about the length of head, the 2nd joint moderately scaled, the 3rd moderate; frons with truncate conical corneous prominence with raised edges and small process in centre; eyes large, round; antennæ of male somewhat laminate and ciliated; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen without crests. Fore wing with the apex rounded, the termen obliquely curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell or stalked; 5 from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

Sect. I. Hind wing with veins 3 and 4 stalked.

A. Fore wing with the costal area white to subterminal line.
  a. Fore wing with the basal inner area white.
    a^1. Fore wing with the orbicular and reniform absent... *sublota*.
    b^1. Fore wing with the orbicular and reniform present *lunana*.
  b. Fore wing with the basal inner area dark.
    a^1. Hind wing with the apex tinged with brown ..... *semialba*.
    b^1. Hind wing with the terminal area suffused with brown in male, in female the whole wing suffused with brown ..... *costalis*.

B. Fore wing with brown markings on costa leaving a more or less developed white subcostal fascia.
  a. Fore wing with the orbicular and reniform absent..... *carachiensis*.
  b. Fore wing with the orbicular and reniform defined by white ..... *nubila*.

*6076. Hoplotarache sublota. (Plate CLXX. fig. 25.)

Tarache sublota, Mab. Ann. Soc. Ent. Fr. 1899, p. 728.

♂. Head and thorax white with some ochreous scales; palpi ochreous, fuscous at tips; antennæ brown; legs and abdomen white suffused with ochreous. Fore wing white, the costa suffused with ochreous and brown; a diffused oblique ochreous brown band from cell to inner margin; a diffused oblique band from termen below apex to inner margin, its outer edge excurved at middle and incurved below vein 3; a red-brown terminal line; cilia white, fuscous at tips. Hind wing white, the terminal area slightly tinged with brown; the underside with terminal series of dark points from apex to vein 2.

Hab. Madagascar, Antongil Bay, type † ♂ in Mus. Paris. *Exp.* 20 millim.

6077. Hoplotarache lunana.

Pyralis lunana, Fabr. Ent. Syst. iii. 2, p. 243 (1794).
Avontia olivea, Guen. Noct. ii. p. 217 (1852); Moore, Lep. Ceyl. iii. p. 47, pl. 150. f. 3; Hmpsn. Moths Ind. ii. p. 313.
Tarache nivosa, Swinh. P. Z. S. 1886, p. 446, pl. 41. f. 14.

♂. Head and thorax white, the metathorax grey-brown; palpi at tips and frons brownish; antennæ brown; fore tibiæ and the tarsi brown ringed with white; abdomen white dorsally suffused

with olive-brown. Fore wing with the costal area white from inner margin near base to costa towards apex, its lower edge expanding into a rather bidentate mark beyond lower angle of cell and angled at vein 6, the rest of wing olive-green largely suffused with silvery purple; the costal edge grey towards base; a subbasal grey spot in cell; antemedial line olive-yellow, diffused, angled outwards at median nervure and connected with the olive-green before postmedial line; orbicular and reniform grey defined by white, small, round, the latter with some white in centre, a grey bar between them; traces of an olive medial line from cell to inner

Fig. 203.—*Hoplotarache lunana*, ♂. ½.

margin; postmedial line olive, excurved from costa to vein 4, then incurved; subterminal line represented by some white scales towards apex and a slight incurved whitish line towards tornus; a series of minute white lunules just before termen; cilia olive-brown at base, white at tips. Hind wing yellowish white, the costal and terminal areas tinged with reddish brown; a brownish discoidal spot; cilia white tinged with brown at apex; the underside with the costal area slightly irrorated with brown.

♀. Hind wing wholly tinged with brown.

Hab. Kashmir, Rajaori (*Leech*), 1 ♂; Punjab, Simla (*Harford*), 1 ♂, Dharmsála (*Hocking*), 9 ♂, 1 ♀, Kangra Valley (*Dudgeon*), 4 ♂, 3 ♀, Cawnpore (*Betton*), 1 ♂, Manpuri, 1 ♂, 1 ♀; Bombay, 1 ♂, Mhow (*Swinhoe*), 1 ♂ type *nivosa*; Madras, Belgaum (*Watson*), 2 ♀. *Exp.* 22–24 millim.

6078. Hoplotarache semialba, n. sp. (Plate CLXX. fig. 2.)

♂. Head and tegulæ white irrorated with brown; thorax brown irrorated with white; antennæ brown; pectus and legs white, the tarsi brown ringed with white; abdomen white dorsally suffused with ochreous brown. Fore wing olive-brown slightly irrorated with grey, the costal area pure white to near apex, its lower edge angled at middle of cell and with a small indentation at discocellulars; postmedial line just traceable, arising from the extremity of white area and strongly incurved below vein 4; cilia white mixed with brown, with blackish patch above tornus and some blackish scales at apex. Hind wing white, the costal area faintly tinged with brown.

Hab. Br. E. Africa, Kikuyu (*Crawshay*), 1 ♂ type. *Exp.* 24 millim.

6079. **Hoplotarache costalis.** (Plate CLXX. fig. 27.)

Acontia costalis, Wlk. xxxiii. 784 (1865).
Taraache lunulinata, Butl. Entom. xxv. p. 64 (1892); Hmpsn. Moths Ind. ii. p. 313.

Head and tegulæ white sometimes slightly tinged with brown; thorax brown; palpi at tips and antennæ brownish; pectus and legs white, the fore tibiæ brownish ringed with white; abdomen brown, ventrally white. Fore wing brown slightly irrorated with grey, the costal area white, its lower edge expanding at middle of cell and triangularly beyond the cell; the costa itself more or less tinged with brown; faint traces of an obliquely curved antemedial line; postmedial line indistinct, arising from the white area at the angle at vein 6, incurved below vein 4; traces of a subterminal line excurved below vein 7 and at middle; cilia with a darker patch above tornus. Hind wing whitish, the costal and terminal areas suffused with brown, in female uniformly suffused; cilia white with a slight brown line near base; the underside white slightly tinged with brown.

Hab. Punjab, Cambellpur, Mean Meer (*Harford*), 1 ♀; Sind, Karáchi; Bombay, 2 ♀, Kutch, 4 ♀, Deesa (*Nurse*), 1 ♀; Madras, Coimbatore (*Walhouse*), 1 ♂ type. *Exp.* 16–20 millim.

6080. **Hoplotarache carachiensis.** (Plate CLXX. fig. 28.)

Acontia karachiensis, Swinh. P. Z. S. 1889, p. 410; Hmpsn. Moths Ind. ii. p. 313.

♂. Head and tegulæ pure white; thorax white slightly tinged with brown; fore tarsi brownish ringed with white; abdomen white dorsally tinged with ochreous brown. Fore wing with the basal half and costal area white, the latter narrowing to a point at apex and with its lower edge curved downwards below the cell, the costa and inner margin faintly tinged with brown: the terminal area suffused with rufous and grey; an oblique medial line with some diffused rufous beyond it from cell to inner margin; postmedial line represented by a black point on costa towards apex and three black points beyond the cell, then very indistinct and incurved; subterminal line faintly indicated by white scales, excurved at middle and incurved in submedian interspace; a terminal series of black points with some white before them below apex and at middle; cilia rufous and grey with white patches below apex and at middle. Hind wing white, the costal area and termen tinged with rufous; cilia white with a rufous line near base from apex to vein 2.

♀. Head and tegulæ tinged with brown; fore wing grey with diffused subcostal white fascia, the outer half of medial area except towards costa and the terminal area tinged with rufous, traces of a sinuous antemedial line with rufous point on median nervure: hind wing wholly tinged with rufous.

Hab. Egypt, Libyan desert in Coll. de Joannis; Sind, Karáchi (*Swinhoe*), 1 ♂, 5 ♀ type; Bombay, Kutch, 1 ♂. *Exp.* 22–24 millim.

6081. **Hoplotarache nubila**, n. sp. (Plate CLXX. fig. 29.)

♂. Head and thorax pure white, the tegulæ and prothorax sometimes with a few black scales, the metathorax with black-brown patch; palpi at tips, frons, and antennæ blackish, the scales in frontal prominence ochreous; legs white mixed with brown, the fore tibiæ and the tarsi brown ringed with white; abdomen white dorsally tinged with ochreous brown and with brown segmental bands. Fore wing purple-grey with some olive-brown suffusion in and beyond the cell, the costal area white to postmedial line with five olive-brown bars from costa, the basal area suffused with white in submedian interspace; subbasal line represented by a white striga from costa; antemedial line indistinctly double filled in with white, sinuous; orbicular and reniform small, with greyish centres and slight dark brown annuli defined by white, the former round; an oblique sinuous blackish medial line from cell to inner margin; postmedial line arising at vein 6, formed of small black lunules defined on outer side by grey, strongly incurved below vein 4 and slightly angled outwards at vein 1; subterminal line slight, white defined on inner side by small dentate brown marks and by a black mark below costa, minutely waved, slightly excurved below vein 7 and at middle, then bent inwards and oblique to tornus; terminal area with some white suffusion at middle; a terminal series of black striæ slightly defined by white on inner side; cilia brown with a few black scales, and white patches below apex and at middle. Hind wing white, the veins, costal and terminal areas suffused with brown; a brown discoidal point; cilia white, tinged with brown at base; the underside with postmedial line excurved at discal fold.

♀. Hind wing wholly suffused with brown.

Ab. 1. ♂. Fore wing with the basal half white, the double brown subbasal and antemedial lines distinct, the latter with some blue-grey beyond it below the cell, the subterminal line with black marks beyond it below apex and veins 3, 2.

Hab. Br. E. Africa, Taveta (*Rogers*), 1 ♀, Tsavo (*Gregory*), 1 ♀. Athi Valley (*Crawshay*), 1 ♂, Eb Urru (*Betton*), 2 ♂, 3 ♀ type; Transvaal, Warmbad (*Janse*), 2 ♀. *Exp.* 20–26 millim.

Sect. II. Hind wing with veins 3, 4 from cell.

A. Fore wing white with dark markings.
  a. Hind wing orange ..... *dispar*.
  b. Hind wing white.
    a^1. Fore wing with the postmedial line defined by green on inner side ..... *viridilinea*.
    b^1. Fore wing without green ..... *nivalis*.
B. Fore wing uniform orange-yellow ..... *helvimedia*.
C. Fore wing uniform creamy white ..... *unicolorana*.

6082. **Hoplotarache dispar.** (Plate CLXX. figs. 30 ♂, 31 ♀.)

Acontia dispar, Wlk. xii. 790 (1857).

♂. Head and thorax creamy white; palpi at tips, a bar across frons, antennæ, and a patch on vertex of head blackish; metathorax with blackish marks at sides; tibiæ and tarsi banded black and white; abdomen orange with slight fuscous dorsal bands, the ventral surface white. Fore wing creamy white; subbasal line olive-grey, double, waved, from costa to submedian fold; antemedial line olive-grey, double, waved; an olive-grey medial band from costa to median nervure towards which it is obsolescent; a black discoidal striga; a small oblique wedge-shaped olive-grey postmedial spot on costa; terminal area olive-grey shading to silvery purple suffused with red, its inner edge slightly angled outwards at vein 6 and strongly incurved below vein 4; postmedial line slight, whitish, minutely waved, arising at vein 6, strongly incurved below vein 4 and with two black and silvery blue marks before it on inner area; a white point on costa before the subterminal line, which is slight, white, interrupted, defined on inner side by red marks and black marks above and below vein 6, excurved below vein 7 and at middle, then incurved and bent outwards to tornus; a terminal series of black lunules with some white before them above tornus; cilia brown with a white patch above tornus and white tips towards apex. Hind wing orange with black-brown terminal band and black points on termen; cilia orange, black at base towards apex; the underside with black discoidal spot, postmedial spots from costa to vein 5, some whitish at apex, a terminal maculate band from apex to vein 4, and some spots towards tornus.

♀. Thorax mostly suffused with grey-brown; fore wing with the basal area suffused with olive-brown leaving the lines whitish, the medial band conjoined to the dark area; hind wing with the terminal band rather more diffused leaving some orange on termen towards tornus.

Hab. Transvaal (*Peal*), 2 ♀; Natal, Newcastle, 1 ♂, Durban (*Kraus, Trimen, Leigh*), 4 ♀ type; Basutoland, Maseru (*Crawshay*), 3 ♂; Cape Colony, Grahamstown, 1 ♀. *Exp.* 30–34 millim.

6083. **Hoplotarache viridifera**, n. sp. (Plate CLXX. fig. 32.)

♀. Head fuscous with a few white scales; thorax creamy white with a fuscous line across mesothorax and lateral fuscous bars on metathorax; fore legs fuscous, the tarsi ringed with white, the mid and hind tarsi with fuscous rings; abdomen white dorsally suffused with rufous. Fore wing creamy white; a small patch of blue-grey scales near base of costa and a large patch before the antemedial line which is blackish and obliquely excurved from costa to median nervure, then sap-green, sinuous, and with a patch of green scales before it above inner margin; orbicular small, rounded, very

incompletely defined by green scales; reniform large, irregularly rounded, its centre defined by green and rufous scales and with annulus on inner side only slightly defined by green scales, a purplish grey patch above it on costa; postmedial line black, obsolete at costa, excurved below costa and strongly incurved below vein 4, some pale rufous before it below costa, then defined on inner side by sap-green becoming a strong band from vein 4 to inner margin with slight white streaks on the veins, defined on outer side by rufous marks in the interspaces; terminal area greyish purple with indistinct waved rufous subterminal line defined on inner side by some white scales; a terminal series of rufous points defined on inner side by white scales and with more prominent striga above vein 1. Hind wing semihyaline white with somewhat wedge-shaped rufous marks on the extremities of the veins; cilia white, brownish at base; the underside with the costal area and the extremities of the veins tinged with rufous.

Hab. Panama, Porto Bello Harbour (*G. B. Longstaff*), 1 ♀ type. *Exp.* 36 millim.

6084. Hoplotarache mionides.

Tarache mionides, Hmpsn. Ann. S. Afr. Mus. iii. p. 435 (1905).

♂. Head and thorax pure white, the metathorax reddish brown; palpi at tips and frons red-brown; legs streaked with brown, the tarsi red-brown ringed with white; abdomen white tinged with rufous. Fore wing purplish grey with the basal area silvery white, acutely angled outwards to lower angle of cell, the costa grey with subbasal and two antemedial white striæ on it; traces of a double brown antemedial line from submedian fold to inner margin; traces of an elliptical discoidal spot and of a sinuous white line from

Fig. 204.—*Hoplotarache mionides*, ♂. ¾.

lower angle of cell to inner margin; a large truncate conical white postmedial patch from costa to vein 5 with olive-green suffusion round it, its inner edge excised below, its outer angled outwards at vein 6; a slight sinuous whitish subterminal line with a minutely dentate white band beyond it with series of blackish points on it and small spots below apex and above tornus. Hind wing semihyaline white with terminal reddish brown band from apex to discal fold; the underside with dark discoidal point.

Hab. Cape Colony, Deelfontein (*Col. Sloggett*), 2 ♂ type. *Exp.* 28 millim.

6085. **Hoplotarache holoxantha**, n. sp. (Plate CLXXI. fig. 1.)

♂. Head, thorax, and abdomen orange-yellow; palpi blackish at tips; fore tibiæ and the tarsi tinged with fuscous; wings uniform orange-yellow; the underside of fore wing with slight brownish suffusion on disk.

Hab. Uganda, White Nile, Gondokoro (*Reynes-Cole*), 1 ♂ type. *Exp.* 20 millim.

*6086. **Hoplotarache sordescens.** (Plate CLXXI. fig. 2.)

Thalpochares sordescens, Staud. Iris, vii. p. 282 (1894); id. Cat. Lep. pal. p. 227.

♀. Head and thorax white faintly tinged with brown; palpi browner towards tips; antennæ brown, ringed with white towards base; tarsi brownish ringed with white; abdomen white tinged with brown. Fore wing white faintly tinged with reddish brown; cilia with a faint brown line at middle. Hind wing white tinged with reddish brown, the terminal area suffused with brown; cilia pure white. Underside of fore wing suffused with brown except the costal area and terminal area to vein 3; hind wing white faintly tinged with reddish brown.

Hab. Asia Minor, Diarbekir in Coll. Püngeler; Syria, Mardin. *Exp.* 24 millim.

Genus **CHELICHARES**, nov.

Type, *C. nubifera*.

Proboscis fully developed; palpi upturned, the 2nd joint hardly reaching to middle of frons and slightly scaled, the 3rd short, porrect; frons with large truncate corneous prominence with raised edges and long central process hollowed out in front, a corneous plate below it; eyes large, round; antennæ somewhat laminate and almost simple; thorax clothed almost entirely with scales and without crests; tibiæ smoothly scaled, the fore tibia with short claw on inner side at extremity; abdomen without crests. Fore wing rather long and narrow, the apex somewhat produced upwards and rounded, the termen obliquely curved and not crenulate; vein 3 from before angle of cell; 5 from above angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

6087. **Chelichares nubifera**, n. sp.

♂. Head and thorax creamy white; palpi except at base and antennæ brown; fore tibiæ and the tarsi brown ringed with white; abdomen white dorsally suffused with brown, the anal tuft ochreous. Fore wing white; subbasal line represented by slight grey-brown striæ from costa and cell; antemedial line grey-brown, double, excurved from costa to median nervure, then incurved; orbicular a black point, the reniform a slight yellow bar; an oblique brown bar from middle of costa; a large purple-grey semicircular

patch on inner margin from middle to subterminal line with portions of the incurved medial and postmedial olive-brown lines on it; subterminal line white defined on inner side by olive-brown and purple-grey, excurved below vein 7, slightly waved at middle and bent outwards to tornus; terminal area blue-grey with black

Fig. 205.—*Chelichares nubifera*, ♂. ½.

marks irrorated with blue-grey at apex and tornus: a terminal series of dark striæ defined on inner side by a white line; cilia brownish and white. Hind wing white, the terminal area slightly suffused with brown.

Hab. Argentina, Metan, 1 ♂ type. *Exp.* 26 millim.

Genus METAPIOPLASTA.

Type.

Metapioplasta, Wllgrn. Kongl. Svensk. Vet.-Akad. Handl. v. 3. p. 70 (1864) ..... *insocia*.

Proboscis fully developed; palpi obliquely porrect, short; frons with a prominence produced to a flattened trilobate plate at middle and with a corneous plate below it somewhat excised in front; eyes large, round; antennæ of male somewhat laminate and minutely ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with decumbent crest; tibiæ smoothly scaled; abdomen without crests. Fore wing rather narrow, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a longitudinally narrow areole. Hind wing with veins 3, 4 stalked; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

A. Hind wing pale yellow ..... *olivescens*.
B. Hind wing whitish, more or less tinged with brown.
  a. Fore wing of male with the brown of terminal area not extending up into the cell between orbicular and reniform, female with brown band beyond the antemedial line ..... *insocia*.
  b. Fore wing of male with the brown of terminal area extending up into the cell between orbicular and reniform, female without brown band beyond the antemedial line... *barrosana*.

6088. **Metapioplasta olivescens**, n. sp. (Plate CLXXI. fig. 3.)

♂. Head, tegulæ, and patagia white; palpi, frons, antennæ, and thorax dark olive-brown; pectus and legs pale yellow, the fore tibiæ and the tarsi brown ringed with white; abdomen pale yellow tinged with brown. Fore wing olive-brown with

a grey gloss, the costal area from inner margin near base to near subterminal line white; the costal edge grey towards base; two subbasal grey spots in cell; antemedial line yellow on the white area, then indistinct, dark, incurved; orbicular and reniform grey-black ringed with white, small, round, the latter with some whitish in centre, the white below it forming a somewhat bidentate mark at lower angle of cell; traces of a sinuous dark medial line from cell to inner margin; postmedial line yellowish on the white area, then indistinct, dark, excurved from vein 6 to 4, then strongly incurved; subterminal line formed by white scales, obsolete at middle and double towards inner margin, minutely dentate; a fine white line just before termen; cilia white. Hind wing pale yellow, the cilia white.

Hab. Br. E. Africa, Kikuyu (*Crawshay*), 1 ♂, Eb Urru (*Betton*), 3 ♂ type. *Exp.* 30 millim.

6089. Metapioplasta insocia.

Acontia insocia, Wlk. xii. 788 (1857); Hmpsn. Nat. Hist. Sokotra, p. 324, pl. xx. f. 6.
Acontia concinnula, Wlk. xii. 789 (1857).
Acontia pyralina, Wlk. xii. 789 (1857).
Acontia simo, Wllgrn. Wien. Ent. Mon. iv. p. 172 (1860).
Acontia cornifrons, Auriv. Œfv. Ak Förh. xxxvi. (7) p. 67 (1879).
Tarache porphyrea (♀), Butl. P. Z. S. 1898, p. 420.

♂. Head and thorax creamy white; fore tibiæ and the tarsi brown ringed with white; abdomen pale yellow, the ventral surface white. Fore wing creamy white; subbasal line brownish grey, double, waved, from costa to submedian fold; antemedial line brownish grey, double, waved, the inner line interrupted in cell; orbicular and reniform small, with more or less incomplete annuli

Fig. 206.—*Metapioplasta insocia*, ♂. ¾.

of blackish scales, the former round, sometimes defined at sides only, the latter elliptical and sometimes with some grey in centre; a brownish striga from middle of costa; postmedial line represented by a brown striga from costa and an interrupted minutely waved black line from vein 6 to inner margin, strongly incurved below vein 4; terminal area purple-grey suffused in parts with red-brown extending to before the postmedial line beyond the reniform and below the cell; traces of an interrupted white subterminal line excurved below vein 7 and at middle; a terminal

series of black strigæ slightly defined by white on inner side; cilia with more or less white below apex and at middle. Hind wing yellowish white, the termen tinged with brown from apex to vein 2; the underside with red-brown marks on costal area before and beyond middle and at apex, and a discoidal point.

♀. Head and thorax tinged with grey; fore wing with the basal half suffused with grey, leaving some white beyond lower part of subbasal line, a quadrate patch from costa to between orbicular and reniform connected by a streak above reniform with a triangular patch beyond the postmedial line, the antemedial line appearing as a single white line; hind wing whitish suffused with brown especially towards termen.

Hab. S. Leone (*Morgan, Foxcroft, Clements, Dudgeon*), 5 ♂, 5 ♀, type and types *concinnula* and *pyralina*; Gold Coast, Accra (*Carter*), 1 ♀; Nigeria, Lagos (*Boag*), 1 ♀, Borgu, Yelwa L. (*Migeod*), 1 ♂; Sokotra, Hadibu Plain (*O.-Grant*), 1 ♂; Br. E. Africa, Tana R. (*Crawshay*), 1 ♂, Kikuyu, Fort Smith (*Crawshay*), 1 ♂, Nairobi (*Crawshay*), 1 ♂, Athi ya-Mawe (*Betton*), 1 ♂, 1 ♀, Affuddu (*Betton*), 1 ♂, Voi (*Betton*), 1 ♀; Uganda, Ruwenzori (*Wollaston*), 1 ♀; Bechuanaland, N'Gami (*Luyard*), 1 ♂; Transvaal, White R. (*Cooke*), 1 ♀; Ceylon, Hambantota (*Pole*), 1 ♂, 1 ♀. *Exp.* 20–24 millim.

6090. **Metapioplasta burmana.** (Plate CLXXI. fig. 4.)

Agrophila burmana, Swinh. A. M. N. H. (7) xv. p. 153 (1905).

♂. Head and thorax creamy white; palpi blackish at tips; frons tinged with grey; antennæ brown; metathorax with lateral black marks; fore tibiæ and the tarsi banded brown and white; abdomen creamy white with dorsal brown bands. Fore wing creamy white; the basal half of costal area olive-brown interrupted by two subbasal white striæ from costa and the white filling of the double antemedial line which is slightly bent inwards to costa; orbicular and reniform very small, the former defined by brown above only, the latter with elliptical brown annulus; terminal area red-brown mixed with some purplish grey; postmedial line represented by an oblique brown striga on the white area and a black-brown sinuous line on the dark area, very strongly incurved below vein 4; subterminal line represented by some yellowish white scales with black-brown marks before and beyond them, excurved below vein 7 and at middle and bent outwards to tornus; a terminal series of black points defined on inner side by white striæ; cilia with some white below apex and at middle. Hind wing greyish suffused with red-brown especially towards termen; a dark discoidal point; cilia white with a brown line near base; the underside with dark discoidal spot and diffused curved postmedial line with yellowish marks before and beyond it on costa.

♀. Thorax and basal area of fore wing much more suffused with grey.

Hab. Burma, Beeling, 1 ♂ type, Thayetmyo (*Watson*), 1 ♀. *Exp.* ♂ 18, ♀ 20 millim.

Genus AULOTARACHE, nov.

Type, *A. decoripennis.*

Proboscis fully developed; palpi obliquely porrect, short; frons with rounded prominence with transverse groove with raised edges across the middle and corneous plate below it; eyes large, round; antennæ of male somewhat laminate and minutely ciliated; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with decumbent crest; tibiæ smoothly scaled; abdomen without crests. Fore wing rather narrow, the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a longitudinally narrow areole; 11 from cell. Hind wing with veins 3, 4 stalked; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

6091. Aulotarache decoripennis.

Tarache decoripennis, Mab. Ann. Soc. Ent. Fr. 1899, p. 728.

♂. Head and thorax creamy white; palpi at tips, a bar across frons, and the antennæ red-brown; fore tibiæ and the tarsi red-brown ringed with white; abdomen yellowish white with red-brown dorsal bands. Fore wing yellowish white; subbasal line pale olive, double, waved, from costa to submedian fold, the outer line forming a patch at costa; antemedial line pale olive, minutely waved; orbicular and reniform very small, the former faintly defined at sides only, the latter with elliptical blackish annulus

Fig. 207.—*Aulotarache decoripennis,* ♂. ¾.

an olive striga from middle of costa; terminal area red-brown mixed with some purplish grey; the postmedial line represented by an olive striga from costa on the white area and an interrupted sinuous black line on the dark area, very strongly incurved below vein 4; subterminal line yellowish white, interrupted, excurved below vein 7 and at middle and angled inwards at discal fold and twice in submedian interspace; a terminal series of black points defined on inner side by white striæ; cilia with patches of white

below apex and at middle. Hind wing yellowish white tinged with red-brown, the terminal area suffused with red-brown, a brown discoidal point; cilia brownish at base, white at tips; the underside yellowish with dark marks on costa before and beyond middle and at apex, a discoidal point and postmedial points on veins 6, 5, 4.

♀. Fore wing with the brown area extending to the antemedial line on inner area and to costa as a band beyond the antemedial line.

Ab. 1. Fore wing whiter and less yellow, the markings of basal area grey.—Kutch.

Ab. 2. ♀. Head, tegulæ, and prothorax brown.—Cuddapah.

Hab. Madagascar, Forêt d'Ambre (*Meade-Waldo*), 1 ♂; Sind, 1 ♀; Bombay, Kutch, 3 ♂, 1 ♀; Madras, Cuddapah (*Campbell*), 1 ♀. *Exp.* 20–22 millim. Type † in Coll. Mabille.

Genus TARACHE.

	Type.
Tarache, Hübn. Verz. p. 261 (1827)	*caffraria.*
Euphasia, Steph. Ill. Brit. Ent., Haust. iii. p. 115 (1829)	*nitidula.*
Desmophora, Steph. Cat. Brit. Ins., Lep. ii. p. 109 (1829), non descr.	*nitidula.*

Proboscis fully developed; palpi porrect, extending to slightly beyond the frons, the 2nd joint rather broadly fringed with scales below, the 3rd short; frons with rounded prominence often slightly roughened at middle and with corneous plate below it; eyes large, round; antennæ of male somewhat laminate and almost simple; thorax clothed almost entirely with scales, the prothorax without crest, the metathorax with decumbent crest; tibiæ moderately fringed with hair; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and hardly crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell or stalked; 5 nearly fully developed from well below middle of discocellulars or almost from lower angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to near middle.

Sect. I. Hind wing with veins 3, 4 stalked.

A. Fore wing of male with hyaline fovea above base of vein 1
  a. Fore wing without ante- and postmedial dark marks on costa.
    a^1. Fore wing with obliquely curved olive-brown basal patch widely separated from the subterminal band ... *lactipennis.*
    b^1. Fore wing without obliquely curved basal dark patch.
    a^2. Fore wing with the olive-brown inner area extending to base ... *[illegible].*
    b^2. Fore wing with the basal inner area white ... *lucasi.*
  b. Fore wing with small quadrate ante- and postmedial dark marks on costa, connected in female with the dark inner area ...

6092. Tarache lactipennis. (Plate CLXXI. fig. 5.)

Tarache lactipennis, Harv. Bull. Buff. Soc. Nat. Sci. iii. p. 10, pl. ii. f. 3 (1875); Smith, Cat. Noct. N. Am. p. 300.

♂. Head and thorax red-brown with a silvery purple gloss;

palpi at base, pectus and legs white, the fore and mid tibiæ and the tarsi tinged with brown; abdomen white, the anal tuft tinged with yellowish. Fore wing white; a red-brown patch at base with obliquely curved upper edge, leaving some white at base of inner margin with the hyaline fovea above it; the costal edge brownish; a broad obliquely curved olive-brown subterminal band from apex to tornus, met at upper angle of cell by an oblique diffused yellowish bar from costa; a fine dentate oblique white postmedial line from vein 7 to inner margin with diffused silvery blue marks before it, a curved brownish line before termen from below apex to submedian fold; a brown terminal line. Hind wing white, the termen suffused with brown from apex to vein 2; the underside wholly white.

Hab. U.S.A., Texas, 1 ♂ type. *Exp.* 32 millim.

6093. Tarache expolita. (Plate CLXXI. fig. 6.)

Tarache expolita, Grote, Papilio, ii. p. 131 (1882); Smith, Cat. Noct. N. Am. p. 298.

Acontia embolima, Druce, Biol. Centr.-Am., Het. i. p. 306, pl. 28. f. 17 (1889).

Head, tegulæ, and prothorax in front white; palpi at tips, a band across frons and antennæ rufous; thorax red-brown suffused with leaden grey; pectus and legs white, the fore tibiæ and tarsi rufous ringed with white; abdomen white dorsally suffused with rufous. Fore wing with the costal area yellowish white to near apex, its lower edge sinuous, the rest of wing red-brown suffused with silvery purple and with some olive below the costal area, a yellowish white patch on termen from vein 5 to tornus with curved inner edge; antemedial line represented by a very faint oblique yellow bar from costa and a slight erect dark line from submedian fold to inner margin; reniform elliptical, faintly defined by blackish except above and with two oblique yellow striæ to it from costa; a faint oblique medial line from cell to inner margin; postmedial line very indistinct, dark, incurved below vein 4; subterminal line represented by slight olive-yellow marks on the white patch; cilia leaden grey on costal half, yellowish white on tornal half. Hind wing white tinged with rufous especially on the veins and terminal area; cilia yellowish white; the underside ochreous white.

Hab. U.S.A., Texas, Round Mt., Arizona, Prescott (*Kunzé*), 2 ♂, Huachuca Mts., 1 ♂; Mexico, N. Sonora (*Morrison*), 1 ♀ type *embolima*, Godman-Salvin Coll. *Exp.* 24 millim.

6094. Tarache lucasi. (Plate CLXXI. fig. 7.)

Acontia lucasi, Smith, Trans. Am. Ent. Soc. xxvii. p. 68 (1900).

♂. Head and thorax white, the metathorax purple grey; palpi at tips, frons and antennæ reddish brown; fore tibiæ and tarsi

red-brown ringed with white; abdomen white dorsally tinged with brown. Fore wing red-brown suffused with silvery purple, the costal area white to near apex, extending at base to below the cell, its lower edge indented at middle of cell and angled just before the reniform; faint traces of brown antemedial and medial lines on the dark area; reniform small, slightly defined by black at sides; postmedial line faint, brown, minutely waved, arising from the white area and strongly incurved below vein 6; subterminal line white, almost obsolete and minutely waved towards costa, excurved at middle and extending to termen, then incurved and bent outwards to tornus; a terminal series of black points; cilia brown mixed with purple-grey and with white patch below middle. Hind wing white, the terminal area suffused with brown; cilia white tinged with brown at apex; the underside white with slight brown mark at apex.

Hab. U.S.A., California, Cape San Lucas, Arizona, Tucson (*Oslar*), 1 ♂. *Exp.* 26 millim.

6095. Tarache tetragona.

Acontia tetragona, Wlk. xii. 786 (1857); Druce, Biol. Centr.-Am., Het. i. p. 305 (part.).
Acontia redita, Feld. Reis. Nov. pl. 108. f. 30 (1874); Druce, Biol. Centr.-Am., Het. i. p. 306 (part.).
Acontia quadriplaga, Smith, Trans. Am. Ent. Soc. xxvii. p. 72 (1900), ♀.
Acontia alessandra, Smith, Trans. Am. Ent. Soc. xxix. p. 212 (1903), ♂.

♂. Head and thorax pure white; palpi at tips, a band across frons, and the antennæ brown; fore tibiæ and the tarsi brown ringed with white; abdomen white dorsally suffused with ochreous. Fore wing pure white; subbasal line represented by a dark point on costa, the antemedial line by a bar from costa; orbicular sometimes represented by a minute black point; reniform brown

Fig. 208.—*Tarache tetragona*, ♂. ½.

defined by black, placed on the inner edge of the dark terminal area which is olive-brown shading to purplish grey towards termen, the inner edge represented by an oblique bar from costa separated by a white streak from the reniform, then incurved to inner margin; a quadrate white postmedial patch on costa, the minutely waved blackish postmedial line arising from it, excurved to vein 4, then incurved; subterminal line slight, whitish, defined on inner side by

rufous marks, somewhat angled outwards at veins 7, 6, excurved at middle and bent outwards to tornus; a terminal series of black striæ slightly defined on inner side by white; cilia brown with some whitish at middle. Hind wing yellowish white, the termen suffused with ochreous; cilia yellowish white; the underside yellowish white with slight ochreous bar from costa beyond middle.

♀. Fore wing wholly brown and grey except the basal area which is obliquely suffused with white and a quadrate white patch on middle of costa, its lower edge indented by the minute orbicular, its outer edge angled outwards above the reniform but not confluent with the postmedial white patch; hind wing more uniformly tinged with ochreous brown.

Hab. U.S.A., Texas, Kerrville, 1 ♀, Shovel Mts., Black Jack Springs, Utah, Stockton, New Mexico, Hot Springs, Arizona, Tucson (*Oslar*), 4 ♂, Huachuca Mts.; Mexico, Jalapa (*Hoege*), 1 ♂, Vera Paz (*Champion*), 2 ♀, Godman-Salvin Coll.; Jamaica (*Goss, Kaye*), 1 ♂, 1 ♀, Runaway Bay (*Walsingham*), 1 ♂; Cuba, Santiago (*Schaus*), 1 ♂, 3 ♀; Haiti (*Tweedie*), 2 ♂, 3 ♀ type. *Exp.* 22–24 millim.

B. Fore wing of male normal.
  a. Fore wing with the ground-colour not greyish.
    a^1. Fore wing not uniform black-brown glossed with grey.
      a^2. Fore wing not fuscous with the basal area ochreous white.
        a^3. Fore wing with the basal half not yellow and the terminal half black-brown.
          a^4. Fore wing of male not yellow with the terminal area dark brown, of female black with yellow patches on costal and inner areas.
            a^5. Fore wing not ochreous yellow with the terminal area brown in both sexes.
              a^6. Fore wing of male not yellow with the terminal area brown, of female brown with pale patches on costa.
                a^7. Fore wing not yellow with red markings.
                  a^8. Fore wing not whitish with broad dark ante- and postmedial bands.
                    a^9. Fore wing without ante- and postmedial dark marks on costa.
                      a^{10}. Fore wing wholly yellowish white except terminal area.
                        Hind wing white..... *rufescens.*
                        Hind wing pale yellow with terminal red-brown band..... *ruficincta.*
                      b^{10}. Fore wing with the inner area dark except towards tornus ..... *major.*
                    b^9. Fore wing with more or less developed ante- or postmedial dark marks on costa often connected with the dark inner area especially in female.
                      a^{10}. Fore wing with the whole inner area dark except towards tornus.

a^{11}. Tegulæ white except at tips..... *lanceolata.*
b^{11}. Tegulæ brown except at extreme base.
a^{12}. Hind wing white..... *bilineci.*
b^{12}. Hind wing yellowish white ..... *mixteca.*
c^{12}. Hind wing entirely suffused with red-brown..... *axendra.*
b^{10}. Fore wing with dark patch on basal inner area separated by a more or less developed white medial band from a dark postmedial patch.
a^{11}. Abdomen not black with prominent white segmental lines.
a^{12}. Fore wing without antemedial dark mark on costa..... *disconnecta.*
b^{12}. Fore wing with antemedial dark mark on costa.
a^{13}. Fore wing with the basal and postmedial dark patches on inner area very small..... *cacola.*
b^{13}. Fore wing with the basal and postmedial dark patches on inner area much more developed..... *gonella.*
b^{11}. Abdomen black with prominent white segmental lines.
a^{12}. Hind wing with more or less developed whitish discal patch, the underside white ..... *abdominalis.*
b^{12}. Hind wing with more or less developed yellow or yellowish white discal patch, the underside yellow ..... *flavipennis.*
c^{10}. Fore wing with the basal inner area whitish often more or less suffused with grey.
a^{11}. Fore wing with the orbicular represented by a black point, spot, or incomplete annulus.
a^{12}. Fore wing with the dark terminal area extending to middle of costa widely separating the postmedial white patch from the white basal area.
a^{13}. Fore wing with the orbicular filled in with black..... *areletta.*
b^{13}. Fore wing with the orbicular defined by black at sides ..... *areli.*
b^{12}. Fore wing with the dark terminal area not extending to middle of costa, the white postmedial patch being conjoined to the white basal area or medial patch.
a^{13}. Fore wing of female with the white patch on medial part of costa widely separated from the postmedial patch.
a^{14}. Hind wing white.
a^{15}. Fore wing with the dark terminal area not extending on inner area to before middle ..... *aprica.*
b^{15}. Fore wing with the dark terminal area extending on inner area to well before middle ..... *micropis.*

b^{14}. Hind wing tinged with brown.
a^{15}. Head white..... *mascci.*
b^{15}. Head brown.
a^{16}. Fore wing with the postmedial line minutely dentate ..... *sedata.*
b^{16}. Fore wing with the postmedial line not dentate ..... *apela.*
b^{13}. Fore wing of female with the white patch on medial part of costa elongate and confluent with the postmedial patch.
a^{14}. Fore wing with the terminal area dark..... *arderis.*
b^{14}. Fore wing with the terminal area mostly white.
a^{15}. Fore wing with the oblique antemedial band from costa olive..... *morides.*
b^{15}. Fore wing with the oblique antemedial band from costa pale rufous..... *ochrochroa.*
b^{11}. Fore wing with the orbicular a grey or brownish point, spot, or annulus.
a^{12}. Metathoracic crest blackish.
a^{13}. Hind wing white ..... *apatelia.*
b^{13}. Hind wing yellow ..... *hyperlophia.*
b^{12}. Metathoracic crest not blackish.
a^{13}. Fore wing with the dark terminal area extending on inner margin to near base.
a^{14}. Hind wing pale yellow with the terminal area brown ..... *nivipicta.*
b^{14}. Hind wing white tinged with brown. *basifera.*
b^{13}. Fore wing with the dark terminal area not extending on inner margin to before middle.
b^{14}. Hind wing whitish.
a^{15}. Fore wing with two whitish spots on inner area on the dark band before postmedial line..... *zelleri.*
b^{15}. Fore wing without whitish spots on inner area on the dark band before postmedial line.
a^{16}. Fore wing with the orbicular and reniform prominent grey spots... *marmoralis.*
b^{16}. Fore wing with the orbicular and reniform hardly traceable ..... *racmastis.*
b^{14}. Hind wing pale yellow with the terminal area brown.
a^{15}. Fore wing with dark spots and streaks on basal area, the antemedial line prominent ..... *hieroglyphica.*
b^{15}. Fore wing without dark spots and streaks on basal area, the antemedial line obsolete or almost obsolete except at costa ..... *clerana.*
c^{11}. Fore wing with the orbicular absent.
d^{12}. Fore wing with quadrate white postmedial patch on costa, in male conjoined to the white basal area .... *arida.*
b^{12}. Fore wing with triangular white medial patch on costa..... *chiera.*

b^8. Fore wing whitish with broad dark ante- and postmedial bands..... *antiqua.*
b^7. Fore wing yellow with red markings ..... *neurota.*
b^6. Fore wing of male yellow with the terminal area brown, of female brown with pale patches on costa.
a^7. Hind wing of male yellow, of female orange, with brown terminal band.
a^8. Hind wing of male with the terminal band narrow, of female moderately broad..... *gratiosa.*
b^8. Hind wing of male with the terminal band broad, of female very broad ..... *crocata.*
b^7. Hind wing brown with some ochreous yellow at base..... *xanthura.*
c^7. Hind wing of male whitish with the terminal area brown, of female wholly brown.
a^8. Fore wing of female with white patch from middle of costa defining the inner side of reniform ..... *microptera.*
b^8. Fore wing of female with white postmedial spot on costa..... *sexpunctata.*
d^7. Hind wing dark brown in both sexes ..... *bicolora.*
b^5. Fore wing ochreous yellow with the terminal area brown in both sexes.
a^6. Fore wing with pale postmedial spot on costa defined on inner side by the postmedial band. *detrita.*
b^6. Fore wing without pale postmedial spot on costa defined on inner side by the postmedial band ..... *thapsina.*
b^4. Fore wing of male yellow with the terminal area dark brown, of female black with yellow patches on costal and inner areas ..... *guttifera.*
b^3. Fore wing with the basal half pale yellow, the terminal half black-brown ..... *hemixanthia.*
b^2. Fore wing fuscous with the basal area ochreous white.
a^3. Fore wing ochreous white to near middle, the postmedial line with ochreous white patch beyond it on inner area ..... *semiatra.*
b^3. Fore wing with the basal one-fourth ochreous white, the postmedial line without ochreous white patch beyond it ..... *flavonigra.*
b^1. Fore wing uniform black-brown glossed with grey... *acerba.*
b. Fore wing with the ground-colour greyish.
a^1. Fore wing with grey centre to orbicular.
a^2. Fore wing without white bar from middle of costa.
a^3. Fore wing with the orbicular and reniform defined by white ..... *nubiluta.*
b^3. Fore wing with the orbicular and reniform not defined by white ..... *hemiglauca.*
b^2. Fore wing with white bar from middle of costa *plumma.*
b^1. Fore wing with the orbicular a black point.
a^2. Fore wing without distinct comma-shaped chocolate-brown patch on postmedial area.
a^3. Fore wing with the medial and postmedial lines widely separated ..... *terminimaculata.*
b^3. Fore wing with the medial and postmedial lines closely approximated ..... *dacia.*
b^2. Fore wing with distinct comma-shaped chocolate-brown patch on postmedial area ..... *cratina.*
c^1. Fore wing with the orbicular absent ..... *phrygionis.*

6096. **Tarache rufescens**, n. sp. (Plate CLXXI. fig. 8.)

♂. Head and thorax white tinged with yellow; palpi white, red-brown at tips; antennæ red-brown; fore tibiæ and the tarsi red-brown ringed with white; abdomen dorsally ochreous, ventrally white. Fore wing white suffused with yellow to the postmedial line, the terminal area ferruginous; postmedial line rufous, excurved from costa to vein 4, then incurved, a triangular yellowish-white mark beyond it from costa, the area beyond it with a faint purplish grey gloss to the very indistinct diffused rufous subterminal line which is slightly excurved below vein 7 and at middle and angled inwards in submedian fold; cilia yellow and rufous with a rufous line through them and greyish patch above middle. Hind wing white, the termen tinged with ochreous; the underside with the costal area tinged with ochreous.

Hab. Brazil, Itaparica (*Meade-Waldo*), 2 ♂ type. *Exp.* 26 millim.

6097. **Tarache ruficincta**, n. sp. (Plate CLXXI. fig. 9.)

♂. Head and thorax glossy yellowish white; antennæ brown; fore tarsi banded with black; abdomen yellow. Fore wing glossy yellowish white; a terminal rufous band widest at middle and ending at submedian fold; cilia rufous except at tornus. Hind wing pale yellow; a terminal reddish brown band with diffused inner edge; cilia yellowish white; the underside pale yellow with slight brown irroration on terminal area below apex.

♀. Hind wing with discoidal spot, the costal half irrorated with brown on upper- and undersides.

Hab. Abyssinia, Atbara (*Gerrard*), 1 ♂, 1 ♀ type. *Exp.* 26 millim.

*6098. **Tarache major.** (Plate CLXXI. fig. 10.)

Acontia major, Smith, Trans. Am. Ent. Soc. xxvii. p. 64 (1900); Dyar, Cat. Lep. N. Am. p. 213.

♀. Head white suffused with rufous; tegulæ and base of patagia white, the rest of thorax olive-brown mixed with some white and silvery scales; pectus and legs white, the fore tibiæ and fore and hind tarsi brownish ringed with white; abdomen pale yellowish. Fore wing silvery white, the inner half dark olive-brown to end of cell into which it extends slightly; orbicular a small round olive-brown spot; reniform small, defined by black except below and with some olive-brown in upper part, a diffused greyish patch beyond it; postmedial line formed of small black spots, arising at vein 6 and below vein 4 very strongly incurved to below end of cell on the dark inner area; apical area dark olive-brown leaving the costal edge white to near apex, with an oblique series of three small black spots on it, and with some diffused grey

below it extending to submedian fold; a terminal series of small black spots, defined by white except towards apex; cilia white mixed with some dark brown towards apex. Hind wing yellowish white, the terminal area suffused with olive-brown from apex to submedian fold; cilia yellowish white with an olive-brown line through them; the underside yellowish white with slight olive-brown suffusion at apex.

Hab. CANADA, Br. Columbia, Rossland, ♀ in Coll. J. B. Smith; U.S.A., Colorado. *Exp.* 28 millim.

6099. Tarache lanceolata. (Plate CLXXI. fig. 11.)

Tarache lanceolata, Grote, Can. Ent, xi. p. 198 (1879); Smith, Cat. Noct. N. Am. p. 299.

Head and thorax brown suffused with silvery grey, the back of head and tegulæ except at tips white; palpi white except at tips; pectus and legs white, the fore tibiæ and tarsi reddish brown ringed with white; abdomen white dorsally tinged with reddish brown. Fore wing olive-green suffused with silvery purple, the costal area and cell white to the oblique olive bar from costa just before middle; a quadrate white patch on middle of costa followed by an olive bar, then a triangular white patch; the apical area with red patch; antemedial line incurved and defined by silvery grey from cell to inner margin; orbicular a small round dark spot conjoined to the dark area, the reniform elliptical and more or less defined by white; a slight olive medial line from cell to inner margin, dentate at vein 1; postmedial line slight, olive, arising from the apex of the triangular white patch, strongly incurved below vein 4 and dentate at vein 1; subterminal line very slight and dentate towards costa with more or less developed black marks before it, excurved at middle, then bent inwards and forming a diffused white patch extending to termen; a terminal series of black points; cilia leaden grey with white patches below apex and at middle. Hind wing white, the termen tinged with red-brown narrowing to tornus; the underside ochreous white.

Ab. 1. Fore wing with the medial and postmedial olive bars interrupted below costa.

Hab. U.S.A., Texas, 1 ♀ type, Arizona, Tucson (*Oslar*), 1 ♂, 2 ♀, Phœnix (*Kunzé*), 1 ♀, Argus Mts, *Exp.* 26 millim.

6100. Tarache bilimeci.

Acontia bilimeki, Feld. Reis. Nov. pl. 108. f. 29 (1874); Druce, Biol. Centr.-Am., Het. i. p. 306.

♂. Head and thorax dark olive-brown suffused with silvery purple, the tegulæ white at base; palpi white except at tips; pectus and legs white, the fore and mid tibiæ and tarsi banded brown and white; abdomen white dorsally suffused with reddish brown. Fore

wing dark olive-brown suffused with silvery purple, the costal area creamy white to near apex, its lower edge sinuous and extending in places to just below cell; traces of a dark antemedial line, oblique from costa to middle of cell, then bent inwards and oblique to inner margin; reniform a small round greyish spot defined by white and sometimes tinged with yellow; traces of a dark medial line from cell to inner margin, slightly angled outwards at vein 1; postmedial line represented by two oblique yellow striæ from costa on the white area, then indistinct, dark, strongly incurved below vein 4 and slightly angled outwards at vein 1; terminal area red on apical half, white on inner half, the subterminal line slight and white on the red area, excurved below vein 7 and at middle, then incurved and defined by grey on inner side on the white area; a terminal series of small black spots slightly defined by white on inner side; cilia purple-grey, intersected with white below apex. Hind wing white, the termen tinged with red-brown from apex to vein 2; cilia white tinged with red-brown at base from apex to vein 2; the underside white with faint red-brown marks from costa beyond middle and at apex.

Hab. Mexico, Cuernavaca (*H. H. Smith*), 1 ♂, Orizaba (*Godman*), 1 ♂, Godman-Salvin Coll. *Exp.* 28 millim.

*6101. Tarache mizteca. (Plate CLXXI. fig. 12.)

Tarache mizteca, Schaus, J. N.Y. Ent. Soc. vi. p. 118 (1898).

♀. Head and thorax blackish grey with a silvery leaden tinge; tegulæ white at base; palpi white below; pectus and legs white, the tibiæ and tarsi with some brown; abdomen white dorsally tinged with brown. Fore wing fuscous black suffused with silvery grey; a white patch on basal costal area extending to median nervure, another on middle of costa, its extremities produced to points on costa, its lower edge waved, a conical patch on postmedial part of costa, the terminal area white from middle to tornus; antemedial line black, from the costal patch to inner margin above which it is excurved; orbicular absent, the reniform with a black point on inner edge and another on outer; postmedial line black, from the costal patch to inner margin, minutely dentate, obliquely curved to submedian fold, then erect; subterminal line represented by a white striga from costa, a minute dentate black mark below vein 7 and oblique series of minute fuscous spots on the white patch; a terminal series of black points except towards tornus; cilia fuscous with dark line through them and white patch below middle. Hind wing yellowish white, the termen tinged with brown.

This is perhaps the female of *T. bilimeci*.

Hab. Mexico, Oaxaca (*Schaus*), type † in U.S. Nat. Mus. *Exp.* 30 millim.

6102. Tarache axendra. (Plate CLXXI. fig. 13.)

Tarache axendra, Schaus, J. N.Y. Ent. Soc. vi. p. 117 (1898).
Acontia bilimeki, Druce, Biol. Centr.-Am., Het. i. p. 306 (part.), nec Feld.

♀. Head and thorax dark olive-brown, the latter suffused with leaden grey; palpi white except at tips; pectus and legs white, the fore tibiæ brown, the tarsi brown ringed with white. Fore wing dark olive-brown suffused with silvery purple especially on inner area; a large wedge-shaped white patch on basal costal area extending to median nervure; an oblique quadrate white patch from middle of costa, its lower edge excised by the minute round black orbicular and the small reniform which is defined by black, hoop-shaped and open below; a triangular white postmedial patch from costa; traces of a dark antemedial line on inner area and of a sinuous medial line; postmedial line arising from apex of the triangular white patch, blackish, minutely dentate, strongly incurved below vein 4 and with more or less developed minutely waved white line beyond it from vein 6 to inner margin; subterminal line slight, white, waved and defined on inner side by slight black streaks from costa to vein 4, then forming a diffused white patch; a terminal series of small black spots except towards tornus; cilia leaden grey with a slight dark line through them. Hind wing greyish suffused with red-brown rather darker towards termen; cilia brown at base, white at tips; the underside ochreous white with brown discoidal bar, a postmedial band excurved beyond the cell and ending at vein 1, some brown suffusion on termen from apex to vein 2.

Ab. 1. Vertex of head and thorax pure white; fore wing without the white patch at tornus, cilia with white patch at middle.

Hab. Mexico, Mexico City (*Hoege*), 1 ♀, Presidio (*Forrer*), 1 ♀, Guerrero (*H. H. Smith*), 2 ♀, Godman-Salvin Coll. *Exp.* 28–30 millim.

6103. Tarache disconnecta. (Plate CLXXI. fig. 14.)

Acontia disconnecta, Smith, Trans. Am. Ent. Soc. xxix. p. 212 (1903).

♂. Head white with some olive-brown above frons and on vertex; antennæ brown; tegulæ pure white; thorax olive-brown with some white and silvery scales; abdomen yellowish white; pectus, legs, and ventral surface of abdomen pure white. Fore wing pure silvery white; an oblique triangular dark olive-brown subbasal patch on inner area connected at inner margin with an oblique antemedial bar from below the cell; a triangular olive-brown patch from lower angle of cell to inner margin with a slight white spot on its outer edge at vein 1; postmedial line represented by a blackish point on costa, two obliquely placed black points beyond the cell between veins 6 and 4 and two small spots on the triangular patch; an olive-brown apical patch with

small triangular white spot on costa near its inner edge, some small olive-brown spots below it beyond the postmedial points and a sinuous line just before termen from its lower edge to vein 3; a terminal series of black points defined on inner side by white; cilia olive-brown with patches of white below apex and at middle. Hind wing white with a very faint brownish tinge, the termen more distinctly tinged with brown from apex to vein 2; cilia white with a brownish line through them from apex to vein 2; the underside pure white.

Hab. U.S.A., Arizona, Huachuca Mts., 1 ♂ cotype. *Exp.* 26 millim. Probably an aberration of *T. gonella*.

6104. Tarache cacola. (Plate CLXXI. fig. 15.)

Acontia cacola, Smith, Trans. Am. Ent. Soc. xxxiii. p. 141 (1907).

♂. Head, tegulæ, and base of patagia white, the frons and vertex of head with brownish bars, the rest of thorax brown tinged with leaden grey; pectus and legs white, the fore tibiæ and fore and mid tarsi brown ringed with white; abdomen white, dorsally faintly tinged with brown. Fore wing white, a rounded subbasal brown patch on inner area and a small antemedial spot on costa; orbicular absent, the reniform represented by two minute dark striæ; medial line very faint, excurved from below costa to median nervure and with brown patch beyond it from below the cell to inner margin broken up by slight white marks; postmedial line with brown striga from costa, then faint and with two black points on it, strongly incurved below vein 4 and with some black scales on it on the brown patch; a red-brown patch at apex, the postmedial line on it represented by some white scales with black mark before it below costa, then represented by slight brown marks; a terminal series of small black spots; cilia grey-brown intersected with white below apex and with white patch at middle. Hind wing white, the veins and terminal area suffused with brown; cilia white with a slight brown line at base; the underside white with slight brown discoidal lunule, the termen suffused with brown from apex to vein 2.

This is probably an aberration of *T. gonella*.

Hab. U.S.A., New Mexico, Hot Springs, Arizona, Prescott (*Kunzé*), 1 ♂. *Exp.* 22 millim.

6105. Tarache gonella. (Plate CLXXI. figs. 16 ♂, 17 ♀.)

Acontia gonella, Streck. Lep. Rhop. & Het., Suppl. i. p. 11 (1898); Dyar, Cat. Lep. N. Am. p. 213.
Acontia niveicollis, Smith, J. N.Y. Ent. Soc. x. p. 51 (1902).

♂. Head and thorax leaden grey, the back of head and tegulæ except at tips white; palpi white except at tips; pectus and legs

white, the fore and mid tibiæ and tarsi banded with brown; abdomen white dorsally suffused with grey-brown. Fore wing white, the inner half of basal area brown suffused with leaden grey; an antemedial grey spot on costa; orbicular a blackish point; reniform very small, elliptical, incompletely defined by black, its centre tinged with grey or olive; a conical brown patch suffused with leaden grey from discal fold before the reniform to inner margin on which it extends from middle to near subterminal line; postmedial line with grey spot on costa, then olive, angled outwards below vein 7 where there are two black points on it, strongly incurved below vein 4 and formed by black lunules on the brown area, a red-brown patch on apical area with the subterminal line on it slight, white and with black patch before it below costa, then slightly defined by grey on inner side on the white area, excurved at middle, then incurved; a terminal series of black points; cilia leaden grey, intersected with white below apex and with white patch at middle. Hind wing whitish, the veins and terminal area suffused with brown; a slight brown discoidal bar; cilia brown at base white at tips; the underside white with brown discoidal bar, a faint postmedial bar from costa, the termen suffused with brown from apex to vein 2.

♀. Tegulæ white at base only; fore wing with complete dark antemedial band, angled outwards on median nervure and usually connected with the postmedial patch; reniform filled in with grey.

Ab. 1. ♂. Fore wing with the antemedial dark spot on costa connected by a slight incurved line with the dark patch on inner margin.

Hind wing often with vein 5 almost from lower angle of cell.

Hab. U.S.A., California, New Mexico, Mesilla (*Cockerell*), 1 ♀, Las Vegas, Hot Springs, Arizona, Phœnix (*Oslar, Kunzé*), 20 ♂, 17 ♀, Prescott (*Kunzé*), 2 ♀, Pinal Mts. (*Kunzé*), 1 ♀, Tucson (*Oslar*), 3 ♀. *Exp.* 22–26 millim.

6106. **Tarache abdominalis.** (Plate CLXXI. figs. 18 ♂, 18 a ♀.)

Tarache abdominalis, Grote, Can. Ent. ix. p. 157 (1877); Smith, Cat. Noct. N. Am. p. 298.

♂. Head and thorax grey-brown; palpi white except at tips; patagia white at outer edge and tips; metathorax with some white at sides; pectus and legs mostly white, the tibiæ and tarsi banded brown and white; abdomen brown with white segmental lines, the ventral surface white with dark bars. Fore wing white, the terminal area reddish brown with an olive tinge, the outer edge of the white area excurved to the reniform, then incurved; the costal area suffused with olive-brown to the antemedial brown bar from costa to median nervure; a brown streak on base of vein 1 ending at double brown bars on inner area representing part of the antemedial line; orbicular a black point; reniform small, brown,

elliptical, slightly defined by white from the dark area; a wedge-shaped white mark from costa beyond middle, the postmedial line arising from its apex and formed of slight silvery marks defined on inner side by somewhat lunulate black marks on inner area, incurved below vein 4 and with a slight irregular dentate white line beyond it from vein 5 to inner margin; subterminal line slight, white, with dentate black marks before it below veins 8, 7, 6, excurved below vein 7 and at middle, then slightly waved and bent outwards to tornus; a terminal series of black points defined on inner side by white; cilia brown with white patches below apex and middle. Hind wing whitish tinged with brown, the veins, costal and terminal areas suffused with brown, or completely suffused; cilia brown at base, white at tips; the underside white, a brown patch on costal area before middle, a postmedial bar from costa to vein 7 and a terminal band from apex to vein 2, the veins tinged with brown.

♀. Fore wing with the antemedial bar connected by a brown fascia in and below cell with the dark terminal area leaving an irregularly quadrate white patch from costa enclosing the orbicular; hind wing almost wholly dark reddish brown; the underside with dark fasciæ on subcostal and median nervures and discoidal bar, the postmedial bar continued as an excurved line to lower angle of cell, the terminal band complete, the inner area suffused with brown.

Ab. 1. ♂. Fore wing with the dark markings on basal area reduced.

Ab. 2. ♀. Fore wing with the basal area entirely suffused with brown.

Hab. U.S.A., Kansas, Texas, 3 ♂, 1 ♀ type, Colorado (*Cockerell*), 1 ♀. *Exp.* 22–28 millim.

6107. **Tarache flavipennis.** (Plate CLXXI. fig. 20.)

Tarache flavipennis, Grote, Bull. Buff. Soc. Nat. Sci. i. p. 153 (1873); Smith, Cat. Noct. N. Am. p. 298.

Head and thorax dark olive-brown with a silvery gloss; palpi white at base; pectus and legs with some white, the tarsi brown ringed with white; abdomen dark brown with slight white segmental lines, the ventral surface with white bands. Fore wing dark cupreous brown with a silvery grey gloss; a diffused white fascia above base of vein 1 ending at the double white bars on inner area representing part of the antemedial line; an oblique irregularly quadrate white patch from middle of costa to median nervure with the black point representing the orbicular on it and the slight elliptical black-defined reniform on its outer edge; a small wedge-shaped white mark from costa beyond middle, the postmedial line arising from its apex, faint, silvery blue defined on inner side by slight black marks and strongly incurved below vein 4; subterminal line indistinct, whitish, defined on inner side by slight black marks,

excurved below vein 7 and at middle, then incurved and bent outwards to tornus; a terminal series of black points slightly defined on inner side by whitish; cilia brown with white patches below apex and middle. Hind wing dark reddish brown with a pale yellow or yellowish white patch in and beyond end of cell bisected by the dark discoidal bar; cilia brown at base, white at tips; the underside pale yellow, the veins irrorated with brown, the basal half of costal area suffused with brown, a discoidal lunule, postmedial bar from costa continued as a slight excurved line to vein 3 and a terminal band.

Ab. 1. ♂. Hind wing with the yellowish on disk more extensive and extending to vein 1.

Ab. 2. ♀. Hind wing with hardly a trace of yellow on disk.

Hab. U.S.A., Oregon, 1 ♀, Rouge R. (*Walsingham*), 2 ♂, 4 ♀, California, 1 ♂, Mt. Shasta (*Walsingham*), 5 ♂, 1 ♀, Sierra Nevada, 1 ♂. *Exp.* 24–30 millim.

*6108. Tarache areletta.

Acontia areletta, Dyar, J. N.Y. Ent. Soc. xv. p. 229 (1907).

♂. Head black; thorax and abdomen creamy white. Fore wing with the basal half creamy white, the terminal half leaden grey and black leaving some white subterminally; the basal area with several waved pale grey lines; orbicular and reniform rounded, filled in with black, rather large; a curved black line defined on outer side by a leaden shade from orbicular to inner margin; a quadrate white patch on postmedial part of costa with points before and beyond it. Hind wing white.

Hab. Mexico, Mexico City (*Müller*). *Exp.* 27 millim. This species is unknown to me.

6109. Tarache areli. (Plate CLXXI. figs. 21 ♂, 22 ♀.)

Acontia redita, Druce, Biol. Centr.-Am., Het. i. p. 306 (nec Feld.).
Acontia areli, Streck. Lep. Rhop. & Het., Suppl. i. p. 11 (1898); Dyar, Cat. Lep. N. Am. p. 214.

♂. Head black-brown; palpi except at tips and lower part of frons white; thorax yellowish white with a few dark scales at base of metathoracic crest; fore tibiæ and the tarsi brown ringed with white; abdomen yellowish white dorsally tinged with brown. Fore wing with the basal half yellowish white, the terminal half purplish grey largely suffused with red-brown especially towards costa; subbasal line brownish, double, from costa to submedian fold; antemedial line double, incurved in submedian interspace; orbicular defined by some black scales at sides; the outer edge of the white area excurved in cell to the reniform which is silvery blue defined by black, elliptical; a triangular white postmedial patch from costa, the rather ill-defined black postmedial line arising

from its apex, incurved below vein 5 and again at vein 2 below which there is a silvery blue patch defined by black beyond it; subterminal line slight, whitish, excurved below vein 7, where there are two short black streaks before it, and again at middle, then incurved; a terminal series of small black spots slightly defined on inner side by white; cilia brown and grey with a whitish patch at middle and a slight dark line through them. Hind wing yellowish white, the termen suffused with reddish brown expanding somewhat at discal and submedian folds; the underside yellowish white with brownish postmedial bar from costa and patch at apex.

♀. Fore wing with the outer edge of the white area excurved in cell to just beyond orbicular only; hind wing rather more uniformly tinged with brown.

In one or two specimens veins 3, 4 of hind wing are hardly stalked or from cell.

Hab. U.S.A., Arizona (*Poling*), 1 ♀, Nogales (*Oslar*), 3 ♂, Pinal Mts. (*Kunzé*), 1 ♀. Prescott (*Kunzé*), 1 ♂, 1 ♀; Mexico, Sonora (*Morrison*), 1 ♀, Durango (*Forrer*), 3 ♂, 2 ♀, Vera Cruz, Cordova (*Rumell*), 1 ♂, 2 ♀, Atoyac (*H. H. Smith*), 1 ♂, Cuernavaca (*H. H. Smith*), 1 ♀, Guerrero (*H. H. Smith*), 1 ♀, Godman-Salvin Coll. *Exp.* 24–32 millim.

6110. Tarache aprica. (Plate CLXXI. figs. 23 ♂, 24 ♀.)

Noctua aprica, Hübn. Eur. Schmett., Noct. p. 371 (1802); Steph. Ill. Brit. Ent., Haust. iii. p. 113; Wood, Ind. Ent. p. 241, pl. 52. f. 1671; Westw. Brit. Moths, i. p. 239, pl. 53. f. 12; Smith, Cat. Noct. N. Am. p. 298.
Noctua albo-ater, Haw. Brit. Lep. p. 184 (1809).
Acontia unocula, Frr. Neue Beitr. vi. p. 86, pl. 534. f. 3 (1852).
Acontia biplaga, Guen. Noct. ii. p. 218 (1852).
Acontia ceyvestensis, Dyar, Proc. Ent. Soc. Wash. vi. p. 63 (1904).
Acontia tetragona, Druce, Biol. Centr.-Am., Het. i. p. 305 (part.), nec Wlk.

♂. Head brown; palpi except at tips and frons white; thorax white; fore tibiæ and the tarsi brown ringed with white; abdomen white. Fore wing white, the terminal area purplish grey and rufous, the white area extending on costa to near apex, its outer edge angled inwards at vein 6 and again below end of cell; a subbasal dark point on costa and ante- and postmedial spots; the orbicular represented by a minute black point, the reniform by a slight brown bar; postmedial line formed of slight dentate black marks, arising at vein 6 and strongly incurved below vein 4; subterminal line formed of slight white marks defined on inner side by small somewhat dentate black marks, excurved below vein 7 and at middle, then incurved and the white marks obscurely double; a terminal series of black striæ defined on inner side by slight white marks; cilia brown with white patch at middle. Hind wing white, the costal area very slightly tinged with brown towards apex; the underside with slight dark postmedial bar from costa.

♀. Tegulæ at middle and dorsum of thorax usually tinged with grey; fore wing with the ante- and postmedial marks on costa forming broad oblique bars connected with the dark area, the orbicular larger, the reniform brown and elliptical slightly defined from the dark area by white; hind wing with diffused brown terminal band from apex to vein 2.

Ab. 1. ♂. Fore wing with the basal costal area and the basal half of inner medial area suffused with leaden grey almost as in female.

Ab. 2. ♀. Fore wing with the whole basal area suffused with leaden grey leaving a white streak on base of vein 1 and traces of an oblique sinuous white antemedial line.

Ab. 3. ♀. Fore wing with the basal costal area and the basal half of inner medial area white as in male.

Ab. 4. *ceyvestensis*. Head and thorax in both sexes white.—Florida.

Hab. U.S.A., E. & S. States, Illinois, Decatur, Florida, Key West, Missouri, Texas, 3 ♂, 6 ♀, Colorado, New Mexico, Roswell (*Cockerell*), 1 ♂, Arizona, Phœnix (*Kunzé*), 3 ♂, 1 ♀; Mexico, Durango (*Forrer*), 1 ♂; Guatemala, S. Geronimo (*Champion*), 4 ♂, 1 ♀, Godman-Salvin Coll.; Honduras (*Dyson*), 1 ♂. *Exp.* 26–30 millim.

*6111. Tarache micropis. (Plate CLXXI. fig. 25.)

Tarache micropis, Druce, A. M. N. H. (8) iii. p. 462 (1909).

♂. Head and thorax pure white; palpi brown at tips; frons with black lateral bars; antennæ brown; fore and mid tibiæ banded with brown, the tarsi brown ringed with white; abdomen white tinged with ochreous. Fore wing silvery white, the terminal area dark olive-brown slightly tinged with grey, its inner edge angled inwards at vein 6 to just beyond the reniform and again beyond lower angle of cell to origin of vein 2, slightly extending into the cell, then oblique to inner margin; subbasal line blue-grey, from costa to submedian fold; antemedial line double, blue-grey, minutely waved, both lines expanding into patches towards costa; orbicular a minute black spot, the reniform represented by two slight dark striæ at upper angle of cell; two oblique blue-grey bars from middle of costa; a black bar below the cell near inner edge of the dark area; an indistinct whitish subterminal line excurved below vein 7 and at middle, then represented by two oblique striæ towards tornus; a terminal series of small black spots defined on inner side by a fine white line from discal fold to tornus; cilia brown and black on apical half, then white with some brown at base at tornus. Hind wing pure semihyaline white, the apex tinged with brown.

Hab. Brazil, Castro Paraña (*D. Jones*), type † ♂ in Coll. Druce. *Exp.* 26 millim.

*6112. Tarache mescei. (Plate CLXXI. fig. 26.)

Acontia meskei, Smith, Trans. Am. Ent. Soc. xxvii. p. 79 (1900); Dyar, Cat. Lep. N. Am. p. 214.

♂. Head, thorax, and abdomen creamy white. Fore wing creamy white, extending on costal half to near subterminal line and on inner half to middle, the terminal area brown tinged with purplish; subbasal line represented by a small blackish spot on costa, the antemedial line by a larger patch; orbicular a black point, the reniform indicated by some diffused brown scales; medial shade represented by a brown band from cell to inner margin just before the postmedial line, which is represented by a dark patch on costa, then by a series of small black spots arising at vein 6 well beyond the cell and bent inwards below vein 3; subterminal line creamy white defined on inner side by a golden brown shade and on costal area by small black spots, irregular; terminal area with brown creamy and purplish markings; a terminal series of black striæ. Hind wing yellowish white, the termen tinged with brown; the underside with dark discoidal spot and postmedial patch on costa with fine line from it to vein 4, a narrow blackish terminal band.

Hab. U.S.A., Texas. *Exp.* 20–22 millim. This species is unknown to me; figured from a drawing from type in U.S. Nat. Mus.

6113. Tarache sedata. (Plate CLXXI. figs. 27 ♂, 28 ♀.)

Tarache sedata, H. Edw. Papilio, i. p. 23 (1881); Smith, Cat. Noct. N. Am. p. 300.

Acontia nuicola, Smith, Trans. Am. Ent. Soc. xxvii. p. 67 (1900); Dyar, Cat. Lep. N. Am. p. 214.

♀. Head grey-brown mixed with white; palpi white; pectus and legs white, the fore tibiæ and the tarsi brown ringed with white; abdomen white with dorsal brown bands. Fore wing with the basal half ochreous white, the terminal half olive-brown shading to purple-grey; subbasal line grey-brown, double, from costa to submedian fold; an antemedial grey-brown band from costa to median nervure, then a slight line incurved in submedian fold and excurved above inner margin, connected at median nervure with the dark terminal area; orbicular a small round black spot; reniform small defined by black, hoop-shaped, open below, some brown in centre and white round it; a conical postmedial yellowish white patch from costa, the dentate black postmedial line arising from it, strongly incurved below vein 4; subterminal line yellowish white with slight red-brown and black marks on its inner edge slightly angled outwards at veins 7, 6, excurved at middle, then bent inwards and oblique to tornus; a terminal series of small black spots slightly defined on inner side by white; cilia leaden grey with whitish patches below apex and at middle. Hind wing

ochreous whitish suffused with brown, a brown discoidal spot and fine terminal line; cilia ochreous white with a brown line near base; the underside ochreous white slightly irrorated with brown, a brown discoidal spot and postmedial band excurved beyond the cell, then almost obsolete, a dark patch at apex.

♂. Thorax with rather more white; fore wing with more white, the ante- and postmedial costal patches not connected with the dark markings on inner medial area and terminal area, the antemedial line almost obsolete on inner half, the reniform hardly defined except by a black point on inner side; hind wing whiter except the terminal area.

Hab. U.S.A., Texas, Shovel Mt., 1 ♂, 1 ♀, Arizona. *Exp.* 24 millim.

6114. Tarache apela.

Acontia apela, Druce, Biol. Centr.-Am., Het. i. p. 307, pl. 28. f. 18 (1889), ♂.

Acontia philomela, Druce, Biol. Centr.-Am., Het. i. p. 307, pl. 28. f. 19 (1889), ♀.

♂. Head grey-brown, the palpi white except at tips; thorax yellow with brown patches on tegulæ; pectus and legs whitish, the tibiæ banded brown and white; abdomen ochreous brown, the ventral surface whitish. Fore wing yellow; subbasal line represented by a slight dark striga from costa and point below cell; antemedial line with dark patch at costa, then slight, angled inwards in submedian fold; orbicular a black point; reniform incompletely defined by black, minute, elliptical; the terminal half mostly suffused with olive and red-brown, leaving the terminal area yellow except at apex and some marks at middle, its inner edge with some black irroration excurved round the reniform, then oblique to inner margin; a triangular yellow patch from costa beyond middle, the slight black postmedial line arising from its apex, defined on outer side by some purple-grey and strongly incurved below vein 4; subterminal line defined by the contrast between the postmedial and terminal areas, dentate below veins 7, 6, excurved at middle, then bent inwards and oblique to tornus; a terminal series of black points; cilia yellow with brown patches at middle and tornus. Hind wing pale cupreous brown; cilia yellowish white at tips; the underside yellowish white, the costal area except towards apex and the terminal area except towards tornus suffused with brown, a dark discoidal striga and postmedial line angled outwards at discal fold and obsolete on inner area.

♀. Thorax grey instead of yellow; abdomen brown; fore wing with the basal half grey suffused with red-brown leaving an oblique white bar from middle of costa expanding in cell into a patch defining the orbicular and reniform which are brown, the markings of terminal half ochreous white; underside of hind wing brown with whitish

streak in discal fold and patches on costa at middle and towards apex.

Hab. Mexico, Presidio (*Forrer*), 1 ♂, Guerrero, Venta de Zopilote (*H. H. Smith*), 2 ♂, 1 ♀ type and type *philomela*, Godman-Salvin Coll. *Exp.* 22–24 millim.

6115. Tarache ardoris. (Plate CLXXI. figs. 29 ♂, 30 ♀.)

Tarache ardoris, Hübn. Zutr. Ex. Schmett. iii. p. 34, ff. 551–2 (1827), ♂: Smith, Cat. Noct. N. Am. p. 301.
Tarache duenna, Schaus, J. N.Y. Ent. Soc. vi. p. 118 (1898).

♂. Head and thorax white, the latter with slight grey marks on dorsum; palpi at tips, a bar across frons and antennæ greyish fuscous; fore tibiæ and the tarsi fuscous ringed with white; abdomen yellowish white with rather diffused dark dorsal bands. Fore wing creamy white; subbasal line grey, double, waved, from costa to submedian fold; antemedial line grey tinged with olive at costa, double, waved; orbicular a minute tuft of raised black scales, the reniform a slight black striga; a small olive spot on middle of costa; terminal area purple-grey mixed with some red-brown and with some olive-green on its inner edge beyond the cell, its inner edge slightly angled inwards at vein 7 and at vein 4 strongly incurved to below the cell; postmedial line with white striga from costa, then formed by slight black marks, strongly incurved below vein 4; subterminal line slight, whitish, defined on inner side by rufous marks, excurved below vein 7 and at middle, then incurved and bent outwards to tornus; a terminal series of black spots with larger marks above and below middle, slightly defined by white on inner side; cilia purple-grey with some rufous and white at apex and some white at middle. Hind wing yellowish white, the termen suffused with ochreous brown except towards tornus.

♀. Fore wing purple-grey beyond the antemedial line leaving a large semi-elliptical white patch on costa with some olive suffusion round it, its lower extremity somewhat excised and with a dark point on it at middle of costa.

Hab. Brazil, Itaparica (*Meade-Waldo*), 1 ♀; São Paulo (*H. Jones*), 2 ♂, Organ Mts., Tijuca (*Wagner*), 1 ♀; Paraguay, Sapucay (*Foster*), 3 ♀; Argentina, Gran Chaco (*Wagner*), 1 ♂. *Exp.* 22 millim. Type † ♀ *duenna* in U.S. Nat. Mus.

The locality "Georgia" is an error.

6116. Tarache morides. (Plate CLXXI. fig. 31.)

Acontia morides, Schaus, Trans. Am. Ent. Soc. xxi. p. 239 (1894).

♂. Head and thorax creamy white; palpi at tips and frons tinged with fuscous; antennæ brown; metathoracic crest brown

and grey; fore tibiæ and tarsi brown ringed with white; abdomen white dorsally tinged with ochreous. Fore wing creamy white; slight grey subbasal spots on costa and in cell; an oblique olive-green antemedial band from costa to median nervure, then a grey line defined by white at sides, or on inner side only, and incurved above vein 1; orbicular a black point; reniform absent; the medial area below the cell and the postmedial area silvery purple with some olive-green on median nervure and beyond the cell; postmedial line represented by a yellow striga from costa on the white area, then a faint double olive line with some black scales on it, strongly incurved below vein 4 and slightly angled outwards at vein 1; subterminal line only defined by some red-brown before it and beyond it at apex and some grey beyond it above tornus, excurved below vein 7 and at middle, angled inwards at submedian fold and bent outwards to tornus; a terminal series of black points; cilia creamy white on apical half, purple-grey towards tornus. Hind wing yellowish white, the termen tinged with ochreous; the underside with the costal area tinged with ochreous.

♀. Fore wing with small elliptical black reniform stigma.

Hab. Brazil, Castro Paraña (*D. Jones*), 1 ♂; Paraguay, Sapucay (*Foster*), 1 ♀; Argentina, Metan, 1 ♀, Goya Corrientes (*Perrens*), 1 ♀, Buenos Ayres (*Wilkinson*), 1 ♀. *Exp.* 24 millim.

*6117. Tarache ochrochroa. (Plate CLXXI. fig. 32.)

Tarache ochrochroa, Druce, A. M. N. H. (8) iii. p. 462 (1909).

♂. Head, thorax, and abdomen ochreous white; palpi brown at tips, antennæ brown; metathoracic crest rufous. Fore wing pale ochreous; an oblique pale rufous antemedial band from costa to median nervure and a sinuous dark line from submedian fold to inner margin where there is a dark mark before it; a black point in middle of cell and a sinuous dark line from cell to inner margin; the postmedial area olive-brown tinged with grey with an indistinct dark olive postmedial line on it defined on outer side by diffused blue-white scales, excurved to vein 4, then strongly incurved; subterminal line only defined by the dark postmedial area which has a redder tinge towards outer edge, excurved below vein 7 and at middle, then incurved and bent outwards to tornus; terminal area tinged with rufous at apex; a series of black striæ on termen except towards apex and tornus; cilia whitish mixed with ochreous on apical half, black mixed with some white towards tornus. Hind wing white tinged with ochreous, the veins brownish the cilia whiter. Underside of fore wing pale ochreous with an elongate dark patch below end of cell continued as a patch beyond the cell.

Hab. Argentina, Goya Corrientes (*Perrens*), type† ♂ in Coll. Druce. *Exp.* 20 millim.

6118. Tarache apatelia. (Plate CLXXII. fig. 1.)

Tarache apatelia, Swinh. A. M. N. H. (7) xix. p. 53 (1907).

♂. Head and thorax pure white, the metathoracic crest black-brown; palpi at tips, frons, and antennæ blackish; tibiæ and tarsi banded black and white; abdomen white with brown segmental dorsal bands. Fore wing creamy white, the terminal area purple-grey suffused with red-brown in parts, the white extending on costa to subterminal line, its outer edge bent inwards at vein 6 to beyond the cell and at vein 4 to medial line, then sinuous to inner margin; subbasal line double, grey-brown, from costa to submedian fold; antemedial line double, grey-brown, rather oblique to median nervure, then waved; orbicular and reniform defined by greyish black, the former open above and below, the latter with some grey in centre; medial and postmedial grey-brown spots on costa; postmedial line arising from the extremity of the white area at vein 6, blackish, minutely waved, strongly bent inwards below vein 4, then indistinctly double filled in with some white; subterminal line white defined on inner side by rufous marks, obsolete towards costa, bent inwards between vein 3 and submedian fold, then outwards to tornus; a terminal series of small black spots except at tornus, defined on inner side by white striæ; cilia brown mixed with white and with slight dark line at middle. Hind wing white, the termen suffused with brown from apex to vein 3; the underside with the costal area tinged with yellow, a dark postmedial bar from costa and patch at apex.

♀. Fore wing with grey-brown band beyond costal half of antemedial line leaving an irregular postmedial white patch on costal area enclosing the reniform, the orbicular filled in with grey; hind wing with brown discoidal bar or point, the terminal band extending to tornus.

Hab. Angola, Bihe, 1 ♀ type; Br. E. Africa, Machakos (*Crawshay*), 1 ♂, Kikuyu (*Betton*), 6 ♀, Eb Urru (*Betton*), 1 ♂, Nairowa (*Betton*), 1 ♀, Gwelil (*Betton*), 1 ♂. *Exp.* 24–26 millim.

6119. Tarache hyperlophia. (Plate CLXXII. fig. 2.)

Tarache hyperlophia, Hmpsn. Ann. S. Afr. Mus. ii. p. 387 (1902).

♂. Head and thorax white; palpi black at extremities of 2nd and 3rd joints: frons with black bar; antennæ and metathoracic crest black; tibiæ and tarsi banded black and white; abdomen yellow with dorsal black bands, the ventral surface white with small lateral and sublateral black spots. Fore wing white; subbasal line grey, double, waved, from costa to submedian fold; antemedial line grey, double, waved, the inner line obsolescent towards costa; orbicular and reniform defined by grey at sides, the former rounded, the latter elliptical; medial and postmedial oblique grey bars from

costa; terminal area silvery grey suffused with red-brown, its inner edge angled outwards at vein 6, then curved downwards round the reniform and slightly sinuous to inner margin, with traces of a dark line near its inner edge; postmedial line indistinctly double, dark, minutely waved, arising at vein 6 and incurved below vein 4; subterminal line white, obsolescent and diffused towards costa, excurved below vein 7 and at middle, then angled inwards and oblique to tornus; a terminal series of black spots slightly defined by white on inner side except towards apex; cilia red-brown with some white at middle and towards apex. Hind wing pale golden yellow with some brown marks on termen from below apex to vein 2; cilia yellowish white; the underside with brown discoidal point, some brown irroration on middle of costa and brown marks on costa beyond middle and at apex.

♀. Fore wing with more or less developed diffused dark band beyond the antemedial line conjoined on inner area to the dark terminal area, the orbicular dark defined by white; hind wing with brown discoidal bar and terminal band from apex to submedian fold, the underside with maculate terminal band from apex to vein 2.

Hab. Transvaal (*Cholmley*, *Ross*), 1 ♂, 2 ♀, Modderfontein (*Kruger*), 1 ♀; Natal, Weenen, 1 ♂ type, Estcourt (*Hutchinson*), 2 ♂, 1 ♀, Maritzburg (*Burnup*), 1 ♀. *Exp.* 24–30 millim.

6120. Tarache nivipicta. (Plate CLXXII. fig. 3.)

Acontia nivipicta, Butl. Trans. Ent. Soc. 1886, p. 400.

Head and thorax white, the metathorax with purplish-brown patch; palpi brownish at tips; antennæ brownish; tibiæ and tarsi banded brown and white; abdomen yellow with dorsal brown bands, the ventral surface white. Fore wing reddish brown suffused with purplish grey, the costal area white from inner margin near base to costa towards apex, its lower edge irregularly sinuous; subbasal line represented by double dark striæ from costa and spots in cell and above inner margin, the antemedial line by an oblique dark bar from costa and indistinct double sinuous line on the dark area; orbicular a small round black spot; reniform brown defined by black, small, elliptical, confluent with the dark terminal area; a medial dark striga from costa and sinuous line from cell to inner margin; postmedial line represented by an oblique brown bar across the white area, then blackish, strongly incurved below vein 4 and slightly angled outwards at vein 1; subterminal line represented by slight white marks from costa to vein 3, then bent inwards, white and oblique to tornus; a terminal series of small black spots except towards tornus defined on inner side by white; cilia brown with a white patch at middle. Hind wing yellow, the terminal area suffused with brown; cilia brownish at base, yellowish white at tips; the underside yellow,

sometimes with brownish marks on costa at and beyond middle and at apex or the termen irrorated with brown to submedian fold.

♀. Fore wing with the antemedial bar from costa connected with the dark inner area.

Ab. 1. Fore wing with the dark marks on the white costal area replaced by faint yellowish marks.

Hab. New Guinea (*Mathew*), 1 ♂, 1 ♀, Port Moresby, 1 ♀; Queensland, Peak Downs, 2 ♀ type, Brisbane (*Turner*), 1 ♂, 1 ♀; W. Australia, Sherlock R. (*Clements*), 2 ♂, 1 ♀, Derby, 1 ♀; N. S. Wales (*Raynor*), 2 ♂. *Exp.* 22–24 millim.

6121. Tarache basifera. (Plate CLXXII. fig. 4.)

Acontia basifera, Wlk. xii. 793 (1857); Hmpsn. Moths Ind. ii. p. 314.

♂. Head and thorax white, the metathoracic crest olive-brown; palpi at tips, a band across frons, and antennæ brownish; fore tibiæ and the tarsi brownish ringed with white; abdomen brown with white segmental lines, the ventral surface white. Fore wing with the costal area white from inner margin near base to costa towards apex, its lower edge irregular and curved downwards to enclose the orbicular and reniform, the rest of wing olive-brown mixed with purplish grey and slightly irrorated with white; subbasal line represented by a grey-brown striga from costa connected with a spot in cell; antemedial line grey-brown and oblique from costa to median nervure where it is angled, then olive and inwardly oblique; orbicular and reniform small, grey-brown, the former round, the latter elliptical; a triangular medial grey-brown spot on costa; postmedial line with grey-brown spot on costa, then blackish with some olive before it beyond and below the cell, excurved to vein 4, then strongly incurved to below end of cell; subterminal line white, obsolescent towards costa, excurved at middle, then bent inwards and oblique to tornus; a terminal series of small black spots defined by white on inner side; cilia brown with white tips towards apex, then fuscous with a white patch at middle. Hind wing white tinged with reddish brown except the costal area to beyond middle, an indistinct discoidal spot; cilia white; the underside white, some brown on middle of costal area, a discoidal spot, diffused postmedial line from costa to vein 3 and terminal band.

♀. Tegulæ at tips, upper part of patagia, and dorsum of thorax grey-brown; fore wing more suffused with olive-green below the white costal area, the antemedial and medial costal marks connected; hind wing wholly suffused with brown.

Hab. Punjab, Almora (*Boys*), 1 ♀ type, Manpuri, 1 ♀, Moghal Sarai (*Bettoni*), 1 ♀; Bombay, Kutch, 1 ♂, Bombay (*Swinhoe, Leith*), 1 ♂, 1 ♀; Madras, Coimbatore (*Wadhouse*), 1 ♀; Burma, Myingyan (*Watson*), 1 ♂. *Exp.* 18–22 millim.

6122. Tarache zelleri. (Plate CLXXII. fig. 5.)

Acontia zelleri, Wllgrn. Anteckn. i. Zool. i. p. 59 (1856); id. Svensk. Vet.-Akad. Handl. v. (3) p. 67 (1864).
Acontia imitatrix, Wllgrn. Anteckn. i. Zool. i. p. 59 (1856); id. Svensk. Vet.-Akad. Handl. v. (3) p. 68 (1864).
Acontia transfigurata, Wllgrn. Anteckn. i. Zool. i. p. 60 (1856); id. Svensk. Vet.-Akad. Handl. v. (3) p. 69 (1864).
Acontia tinctilis, Wllgrn. Œfv. Ak. Förh. 1875, p. 109.

Head and thorax white more or less mixed with olive-green; antennæ brownish; fore tibiæ and tarsi brown ringed with white, the mid and hind tibiæ with brown bands near extremity; abdomen white with dorsal brown bands, the anal tuft ochreous. Fore wing creamy white; an irregular subbasal olive-green band from costa to submedian fold; a double irregular antemedial olive-green band, the inner part interrupted in cell, angled outwards below costa and at median nervure where it is sometimes connected with the dark postmedial area, then somewhat oblique; orbicular and reniform small, fuscous with some white in centres, the former round, the latter elliptical; an olive medial bar from costa and a sinuous line from middle of cell to inner margin, the area beyond it olive-green with more or less developed white spots below the cell and above vein 1; a postmedial olive-green patch on costa with a triangular white patch beyond it, the indistinct rufous postmedial line arising from its apex and strongly incurved below vein 4; postmedial area olive-green suffused with purplish grey and with rufous towards costa, some white scales on it forming traces of an oblique sinuous line; subterminal line white and only defined from the white terminal area by patches of olive-green at apex and above and below middle, bent inwards below vein 3 and oblique to tornus; some black striæ on termen; cilia white with black patch below apex intersected by olive at base, and blackish patch above tornus. Hind wing ochreous white, the termen tinged with brown from apex to vein 2, in female the whole wing suffused with brown; cilia white, brown at base towards apex; the underside with the costal area yellow with postmedial brown bar from costa and patch at apex.

Hab. Gold Coast, Accra (*Carter*), 1 ♀, Kumasi (*Whiteside*), 1 ♀; Nigeria, Yorubaland, Ogbomoso (*Carter*), 1 ♂; Br. E. Africa, Teita (*Jackson*), 1 ♂; Gazaland, Chirinda Forest (*Marshall*), 2 ♀; Transvaal, White R. (*Cooke*), 1 ♀, Pretoria (*Jarse*), 1 ♀; Zululand, Lr. Tugela (*Reynolds*), 2 ♀; Natal, Victoria Distr. (*Gooch*), 1 ♂, Durban (*Leigh*), 1 ♂, 2 ♀; Farquhar Is. (*Fletcher*), 1 ♀.

6123. Tarache marmoralis.

Noctua marmoralis, Fabr. Ent. Syst. iii. 2, p. 234 (1794).
Acontia tropica, Guen. Noct. ii. p. 217 (1852); Moore, Lep. Ceyl. iii. p. 47, pl. 150. f. 2; Hmpsn. Moths Ind. ii. p. 314.

Acontia maculosa, Wlk. xii. 795 (1857); Butl. Ill. Het. B. M. iii. p. 20, pl. 46. f. 1.
Acontia bipunctata, Wlk. xii. 798 (1857).

♂. Head and thorax yellowish white mixed with reddish ochreous; antennæ brownish; fore tibiæ and the tarsi brown ringed with white; abdomen ochreous white with dorsal brown bands. Fore wing yellowish white extending on costa to near apex and on inner margin to middle, the terminal half olive-brown with some purplish suffusion on postmedial area except towards costa and some yellowish white on termen; subbasal line represented by obliquely placed olive-ochreous spots on costa and in cell; a double diffused olive-ochreous antemedial band interrupted in cell and somewhat oblique below it; orbicular and reniform small, grey-brown with white

Fig. 209.—*Tarache marmoralis*, ♂. ½.

centres, the former round, the latter elliptical; an oblique olive-ochreous bar from middle of costa and line from cell to inner margin; postmedial line olive-ochreous towards costa, rufous below vein 6, excurved from below costa to vein 4, then incurved; subterminal line yellowish white defined on inner side by slight rufous marks with some white scales before them, excurved below vein 7 and at middle, then bent inwards and oblique to tornus; a terminal series of small black spots except towards apex and tornus; cilia yellowish white with blackish patch above middle and some blackish at apex and tornus. Hind wing ochreous white, the costa towards apex and the termen to vein 2 tinged with red-brown; cilia ochreous white tinged with brown at base from apex to vein 2, the underside with brown discoidal spot, postmedial bar from costa and patch at apex.

♀. Ground-colour of head, thorax, and fore wing much whiter, the dorsum of thorax greyish; fore wing with the markings much greyer and less olive, or with hardly any olive tinge; hind wing with the terminal area more broadly suffused with brown extending to tornus.

Hab. Ur. Egypt; Loochoo Is. (*Pryer*), 1 ♂; China (*Harrington*), 2 ♂, 1 ♀ type *maculosa*; Formosa (*Hobson*), 1 ♀; Punjab, Simla (*Harford*), 1 ♀, Dharmsála (*Hocking*), 5 ♂, 3 ♀, Almora (*Boys*), 2 ♀, Deyra Dhun, 1 ♂, Allahabad, 1 ♂; hab. ign., 1 ♂ type *bipunctata*; Sikhim, 1 ♂, 1 ♀; Bengal, Calcutta, 1 ♂, 1 ♀; Madras, Nilgiris (*Hampson*), 1 ♂, 1 ♀; Ceylon, Colombo (*Vidner*), 2 ♂, Trincomali (*Verbury*), 1 ♀; Burma, Rangoon (*Scott*), 1 ♀,

Up. Burma, Pagan (*Wood*), 1 ♂, Pakoko (*Wood*), 1 ♀, Myingyan (*Watson*), 1 ♂; Pulo Laut (*Doherty*), 1 ♂; Java (*Horsfield*), 4 ♂, 4 ♀ type *tropica*; Celebes (*Doherty*), 1 ♂, 2 ♀. *Exp.* 20–24 millim.

Larva. Grey with diffused purplish bands at middle of each somite and numerous irregular yellowish-white spots defined by purple-brown forming a double dorsal line and bands on the somites; warts black; head rufous with the mouth parts black; legs black, the first two pairs of prolegs absent.

6124. Tarache rachiastis. (Plate CLXXII. fig. 6.)

Tarache rachiastis, Hmpsn. A. M. N. H. (8) i. p. 483 (1908).

♂. Head and thorax ochreous white; palpi at tips and antennæ brown; fore tibiæ and the tarsi brown ringed with white; abdomen ochreous white with slight dorsal brown bands. Fore wing ochreous white; a faint ochreous patch on base of costa; a faint slightly curved ochreous antemedial band with brown mark at costa; orbicular and reniform hardly traceable; a brown mark on middle of costa with an ochreous bar from it and an oblique blackish line from cell to inner margin with red-brown suffusion beyond it; postmedial line with brown mark at costa, then faint and excurved to vein 4 with black bar on it beyond the cell, bent inwards below the cell and formed by black lunules to inner margin, the area beyond it red-brown with purple suffusion on postmedial area except towards costa and some ochreous white on terminal area; subterminal line ochreous white defined on inner and outer side by red-brown marks, excurved below vein 7 and at middle and bent outwards to tornus; some black points on termen; cilia yellowish white with brown patches above middle and at tornus. Hind wing ochreous white, the termen suffused with red-brown; cilia ochreous white; the underside ochreous white with slight postmedial brown bar from costa.

♀. Head, thorax, and fore wing much yellower, the last with the markings of yellow area greenish, the orbicular a dark point, the reniform traceable, elliptical, the dark patches of cilia blackish.

Hab. Indian Ocean, Aldabra (*Meade-Waldo*), 1 ♂, 1 ♀ type. *Exp.* ♂ 20, ♀ 22 millim.

6125. Tarache hieroglyphica. (Plate CLXXII. fig. 7.)

Tarache hieroglyphica, Lower, P. Linn. Soc. N.S.W. xxvi. p. 658 (1902).

♂. Head and thorax white; palpi at tips, a bar above frons and antennæ brown; tegulæ, patagia, and vertex of thorax with brown patches; fore tibiæ and the tarsi brown mixed with white; abdomen yellow with dorsal brownish bands, the ventral surface white. Fore wing creamy white, the terminal area reddish brown suffused with purplish grey, the white area extending on costa to near

apex, its outer edge bent inwards at vein 6 to the reniform and below the cell to the medial line; subbasal line represented by double grey-brown spots on costa and in cell; a streak above base of inner margin; antemedial line grey-brown, excurved below costa, then oblique, a brown mark before it above inner margin; orbicular a small round brown spot, the reniform brown defined by a few black scales, small, elliptical; medial and postmedial brown spots on costa; postmedial line arising at vein 6 from the extremity of the white area, formed of small lunulate black marks and strongly incurved below vein 4; subterminal line formed of slight white marks from costa to vein 3, then bent inwards, strong and oblique to tornus; a terminal series of small black spots defined by white on inner side; cilia brown with white patches below apex and at middle. Hind wing yellow; a small brown discoidal spot; the terminal area broadly suffused with brown, its inner edge bent inwards below end of cell; cilia brown at base, yellowish white at tips; the underside with dark discoidal lunule and postmedial mark on costa, the terminal area suffused with brown.

♀. Fore wing with broad antemedial brown band connected with the medial spot on costa, the postmedial spot usually connected with the terminal brown area.

Ab. 1. ♀. Fore wing with the antemedial band connected by a fascia on median nervure with the terminal brown area.

Hab. N. Australia, Alexandria (*Stalker*), 1 ♀; W. Australia, Sherlock R. (*Clements*), 3 ♀, Roebourne (*Lyell*), 1 ♂, Derby (*Lower*), 1 ♂; S. Australia, Dalby, 1 ♀. *Exp.* 20 millim.

6126. Tarache clerana. (Plate CLXXII. fig. 8.)

Tarache clerana, Lower, P. Linn. Soc. N.S.W. xxvi. p. 658 (1902).

♂. Head and thorax creamy white; palpi at tips and antennæ brown; frons with brown bar above; tibiæ and tarsi banded brown and white; abdomen yellow with faint dorsal brownish band, the ventral surface white. Fore wing creamy white, the terminal area reddish brown with some purplish white suffusion on postmedial area except towards costa, the white extending on costa to near apex, at vein 6 bent inwards to the reniform and below the cell to the medial line; subbasal line represented by a dark brown spot on costa; the antemedial line with dark brown spot on costa, then hardly traceable, sinuous; orbicular represented by a minute grey point, the reniform grey defined by some brown scales and with some grey in centre, small, elliptical; medial and postmedial dark brown spots on costa; postmedial line formed by small lunulate black marks and much interrupted, strongly incurved below vein 4 and angled outwards at vein 1; subterminal line white, more or less obsolescent on costal half except for a white striga from costa, excurved below vein 7 and at middle, then bent inwards and oblique to tornus; a terminal series of black points slightly defined on

inner side by white; cilia brown with white patches below apex and at middle. Hind wing yellow, the terminal half suffused with reddish brown; a brown discoidal point; cilia brown at base, whitish at tips; the underside with brown discoidal spot and the termen tinged with brown.

♀. Fore wing with the antemedial line distinct except at inner margin, oblique below the cell.

Hab. N. Australia, Alexandria (*Stalker*), 3 ♂, 1 ♀; Queensland, Brisbane (*Turner*), 2 ♂; N.S. Wales, Broken Hill (*Lower*), 1 ♂, Sydney (*de la Garde*), 2 ♂. *Exp.* 18–20 millim.

6127. Tarache arida. (Plate CLXXII. fig. 9.)

Acontia arida, Smith, Trans. Am. Ent. Soc. xxvii. p. 73 (1900); Dyar, Cat. Lep. N. Am. p. 214.

Head and thorax white; palpi except at base, antennæ and metathorax greyish; legs greyish, the tarsi slightly ringed with white; abdomen grey-brown, the ventral surface white. Fore wing white, the medial area except towards costa and inner margin tinged with olive-yellow; some grey in base of cell and above inner margin; a grey antemedial spot on costa and a diffused yellowish line, incurved below the cell and not reaching inner margin; orbicular absent; the outer half of medial area and the postmedial area grey, its inner edge with some olive suffusion, angled outwards in cell, then oblique; reniform very faintly defined, grey, small, elliptical; a quadrate white postmedial patch on costa angled inwards below costa and sometimes completely separating the grey patch on middle of costa from the rest of the grey area, the olive postmedial line arising below the white patch towards which it is interrupted and tends to form streaks, strongly incurved below vein 4, some blue-white irroration beyond it; subterminal line yellowish white defined on inner side by red-brown marks and very faintly by brownish on outer, excurved below vein 7 and at middle, then bent inwards and oblique to tornus; a red-brown patch irrorated with blue-white at apex; cilia white tinged with yellow at tips and with grey-brown towards apex and at tornus, a slight dark line through them. Hind wing white tinged with reddish brown especially towards termen, in female uniformly suffused with fuscous brown; cilia brown at base, white at tips.

Hab. U.S.A., S. Arizona (*Poling*), 1 ♀, Phœnix (*Oslar*), 2 ♂. *Exp.* 24 millim.

6128. Tarache elæoa, n. sp. (Plate CLXXII. fig. 10.)

♂. Head and thorax whitish suffused with olive-green; palpi at base and lower part of frons white; antennæ brown; pectus and legs white, the fore tibiæ and the tarsi brown ringed with white;

abdomen ochreous white dorsally suffused with red-brown. Fore wing olive-green very slightly irrorated with black, the inner area and termen with some whitish suffusion; subbasal line represented by a minute blackish striga in cell; an oblique wedge-shaped yellowish white antemedial patch from costa, the very faint pale antemedial line arising from its apex; a triangular yellowish white medial patch on costa and faint traces of a line from cell to inner margin; postmedial line represented by a small yellowish white spot on costa and below vein 6 by slight diffused blackish marks incurved below vein 4; the postmedial area tinged with purplish grey except towards costa; subterminal line slight, yellowish white, excurved below vein 7 and at middle and bent outwards to tornus; some black points on termen; cilia yellowish white with slight dark line through them and blackish patches at middle and above tornus and some black at apex and tornus. Hind wing ochreous white suffused with red-brown, the termen rather darker; cilia brown at base, ochreous white at tips; the underside ochreous with brownish patches on costa before and beyond middle and diffused terminal band.

Hab. Queensland, Townsville (*Dodd*), 1 ♂ type. *Exp.* 24 millim.

*6129. Tarache xuthosoma. (Plate CLXXII. fig. 11.)

Tarache xuthosoma, Turner, P. Linn. Soc. N.S.W. xxxiv. p. 349 (1909).

♂. Head and thorax white tinged with yellow; palpi with black-brown hair mixed; antennæ black-brown; tegulæ, patagia, and metathorax with black-brown patches; pectus and legs suffused with black-brown, the tarsi ringed with white; abdomen yellow, the base and ventral surface white. Fore wing white, the costal edge black-brown; a diffused black-brown subbasal line from costa to submedian fold; antemedial and medial irregular black-brown lines, angled outwards in cell and confluent on inner area, some black-brown irroration between them; postmedial line excurved below costa and at middle, then oblique to submedian fold where it terminates; subterminal line with a broad band of black-brown suffusion on its inner side, strongly bent outwards between veins 7 and 6 and excurved at middle; a terminal series of black-brown spots; the apical area and cilia tinged with ochreous. Hind wing ochreous white suffused and irrorated with black-brown; the underside ochreous white slightly irrorated with fuscous, indistinct antemedial, postmedial, and subterminal lines.

Hab. Queensland, Kuranda (*Dodd*), type † ♂ in Coll. Turner; N. Australia, Port Darwin. *Exp.* 18 millim.

*6130. Tarache neurota. (Plate CLXXII. fig. 12.)

Tarache neurota, Lower, Tr. R. Soc. S. Austr. xxvii. p. 33 (1903).

♀. Head, tegulæ, and abdomen ochreous; thorax pale yellow above. Fore wing whitish yellow; a blood-red subbasal striga from costa; some red suffusion below base of cell; an oblique waved red antemedial line expanding into a large patch on outer side at middle, on medial nervure conjoined to a large discoidal patch; postmedial line somewhat dentate, bent outwards below costa, excurved to vein 4, then incurved and confluent with the discoidal patch; an ill-defined highly dentate subterminal line; a terminal band with irregular inner edge. Hind wing silky ochreous tinged with brown on terminal area; an ill-defined brown discoidal spot and sinuous postmedial and subterminal lines. Underside ochreous; fore wing tinged with fuscous and with discoidal spot and minutely waved postmedial and subterminal lines; hind wing with slight postmedial curved punctiform line.

Hab. Queensland, Cooktown, type† ♀ in Coll. Lower. *Exp.* 20 millim.

6131. Tarache gratiosa. (Plate CLXXII. figs. 13 ♂, 14 ♀.)

Acontia gratiosa, Wllgrn. Anteckn. i. Zool. i. p. 59 (1856); id. Svensk. Vet.-Akad. Handl. v. (3) p. 68 (1864).

Acontia luteola, Saalm. Lep. Madag. p. 333, f. 171 (1891).

♂. Head and thorax olive-yellow; palpi whitish, black at tips; frons whitish with blackish bar above; pectus white, the fore tibiæ and the tarsi black ringed with white; abdomen orange, the ventral surface white. Fore wing orange-yellow, extending on costa to towards apex and on inner margin to middle, the terminal area deep rufous with purple suffusion on postmedial area except towards costa and some yellow on middle of termen, the inner edge of the dark area curved inwards round the reniform and bent inwards below the cell; subbasal line represented by two dark points on costa and a greenish yellow spot in cell; antemedial line diffused, greenish yellow with dark mark at costa; orbicular a black point, the reniform slightly defined by black except below and with some greenish in centre, elliptical; postmedial line with dark mark at costa, oblique olive line to vein 6, then indistinct, rufous, incurved below vein 4 and slightly angled outwards at vein 1; subterminal line yellow, interrupted, excurved below vein 7 and at middle, then bent inwards and obliquely waved to tornus; a terminal series of small black spots except towards tornus, slightly defined on inner side by white; cilia yellow mixed with rufous and with purplish fuscous patches above middle and at tornus. Hind wing golden yellow, the termen suffused with brown; cilia yellow tinged with brown towards apex.

♀. Head and thorax above black mixed with some ochreous; abdomen dorsally black with yellow segmental lines. Fore wing with the yellow area replaced by black-brown suffused with purple, with subbasal and antemedial white striæ from costa and an oblique white patch from costa to before the reniform on it; hind wing deep orange with broad black-brown terminal band with sinuous inner edge.

Hab. Gold Coast, Accra (*Carter*), 4 ♂, 1 ♀; Nigeria, Lagos, Ebute Meta (*Boag*), 1 ♀, Borgu, Yelwa Lake (*Migeod*), 2 ♂; Abyssinia, Atbara (*Gerrard*), 1 ♂; Br. E. Africa, Ngatana (*Gregory*), 1 ♂, Takaunga (*Thomas*), 1 ♀, Kitwi (*Crawshay*), 1 ♂, Keres (*Betton*), 1 ♀, Machakos (*Crawshay*), 3 ♂, 4 ♀; Uganda, Ruwenzori (*Wollaston*), 1 ♂; Mashonaland, Salisbury (*Marshall*), 1 ♀; C. Colony, Caffraria; Madagascar. *Exp.* 18–20 millim.

6132. Tarache crocata. (Plate CLXXII. figs. 15 ♂, 16 ♀.)

Acontia crocata, Guen. Noct. ii. p. 218 (1852); Hmpsn. Moths Ind. ii. p. 314.
Acontia significra, Wlk. xii. 796 (1857).
Acontia meridionalis, Wlk. xxxiii. 785 (1865).
Acontia scanda, Feld. Reis. Nov. pl. 103. f. 27 (1874).

♂. Head and thorax deep yellow with a slight olive tinge; palpi at tips, lateral spots on frons and antennæ brownish; fore tibiæ and the tarsi blackish ringed with white; abdomen orange dorsally tinged with red-brown. Fore wing deep yellow with a slight olive tinge extending on costa to towards apex and on inner margin to middle, the terminal half red-brown with purplish suffusion on postmedial area except towards costa, the inner edge of the brown area sinuous; subbasal, two antemedial, medial, and postmedial brown marks on costa with whitish patches between them; traces of a pale antemedial line excurved to median nervure, then incurved; reniform defined by black with some yellow in centre and purple in upper and lower parts, small, elliptical; postmedial line arising from the whitish spot on costa, black, minutely waved, incurved below vein 4; subterminal line yellow, almost obsolete towards costa, excurved below vein 7 and at middle, then bent inwards and oblique and somewhat dentate to tornus; a terminal series of black points slightly defined by yellowish on inner side; cilia yellowish white with a slight rufous line through them and purplish fuscous patches above middle and at tornus. Hind wing orange, the costal and terminal areas reddish brown, the latter with sinuous inner edge incurved in submedian interspace.

♀. Head and thorax black-brown tinged with purple and slightly mixed with yellow; abdomen dorsally black-brown with yellow segmental lines: fore wing with the yellow area replaced by black-brown suffused with purple, the spots on costa between the dark marks white, the medial spot round; the antemedial line very indistinct, dark.

Ab. 1. ♂. *meridionalis*. Head and thorax with brown scales mixed; fore wing with some brown on the basal area, the subbasal and antemedial lines defined by brown on costal half.

Ab. 2. ♂. Fore wing with the yellow replaced by whitish, the basal area largely suffused with red-brown leaving irregular white markings.

Hab. Formosa (*Hobson*), 1 ♂; Punjab, Simla (*Harford*), 1 ♂, Dharmsála (*Hocking*), 5 ♂, Almora (*Boys*), 2 ♀, type *signifera*, Allahabad, 2 ♂, 1 ♀; Bengal, Calcutta, 1 ♂; Bombay (*Leith*, *Swinhoe*), 3 ♂, 2 ♀, Kutch, 1 ♀, Bandra (*Jayakar*), 2 ♂, 2 ♀; Madras, Gooty (*Campbell*), 1 ♀, Coimbatore (*Walhouse*), 1 ♂, 1 ♀ type *meridionalis*; Ceylon, Hambantota (*Pole*), 1 ♂, 1 ♀; Burma, Myingyan (*Watson*), 1 ♂, 2 ♀, Thayetmyo (*Watson*), 2 ♂; Queensland, Townsville (*Dodd*), 2 ♂; N. Australia, Alexandria, (*Stalker*), 1 ♀. *Exp.* 16–22 millim.

6133. Tarache xuthota, n. sp. (Plate CLXXII. fig. 17.)

♀. Head and tegulæ orange; palpi at tips and antennæ brown; thorax brown, the outer edge of patagia orange; pectus and legs ochreous yellow, the fore tibiæ and tarsi with brownish bands; abdomen brown with segmental yellow lines, the ventral surface ochreous. Fore wing red-brown with a slight purplish grey tinge; a large orange-yellow patch on basal area, extending at base to vein 1 and smaller medial and postmedial patches on costa; traces of a dark antemedial line bent outwards below costa, then oblique; a red-brown postmedial line excurved from below costa to vein 4, then incurved; traces of a dark subterminal line incurved below vein 3. Hind wing reddish brown, the basal area yellow, extending in cell to its extremity; cilia yellow at base and tips, brown at middle; the underside yellow suffused with brown, an indistinct diffused dark postmedial band from costa to vein 3.

Hab. Queensland, Townsville (*Dodd*), 1 ♀ type. *Exp.* 22 millim.

*6134. Tarache microptera. (Plate CLXXII. fig. 18.)

Acontia microptera, Mab. Ann. Soc. Ent. Fr. (5) ix. p. 321 (1879); Saalm. Lep. Madag. p. 330.
Acontia nævulosa, Saalm. Lep. Madag. p. 331, f. 257 (1891).

♀. Head, thorax, and abdomen ochreous brown; tarsi brown with pale rings. Fore wing greyish brown suffused in parts with dark brown, especially on costal area from beyond antemedial line; subbasal line represented by a whitish point on costa; antemedial line indistinct, dark, sinuous; orbicular and reniform small black annuli with a quadrate white patch between them emitting a curved streak round upper part of reniform; an indistinct black medial line from cell to inner margin; postmedial line blackish arising

from a wedge-shaped brown mark on costa followed by a wedge-shaped white mark, excurved to vein 4, then incurved to below origin of vein 2 and erect to inner margin; an indistinct subterminal line excurved below vein 7 and at middle; a terminal series of black points defined on inner side by slight whitish marks. Hind wing uniform reddish brown, the cilia greyish brown; the underside greyish suffused with brown, a slight discoidal lunule and indistinct curved postmedial line.

Hab. Madagascar, Nossi-Bé, type † ♀ in Coll. Mabille. *Exp.* 22 millim.

6135. Tarache sexpunctata.

Pyralis 6-*punctata*, Fabr. Ent. Syst. iii. 2. p. 245 (1794).
Erastria imbuta, Wlk. xxxiii. 794 (1865); Hmpsn. Moths Ind. ii. p. 314.
Acontia inda, Feld. Reis. Nov. pl. 108. f. 23 (1874); Moore, Lep. Ceyl. iii. p. 48, pl. 150. f. 5.
Acontia acerba, Feld. Reis. Nov. pl. 108. f. 25 (1874).

♂. Head and thorax yellow with a slight olive tinge; antennæ brownish; palpi, pectus, and legs whitish, the fore tibiæ and the tarsi brown ringed with white; abdomen ochreous. Fore wing yellow with a faint olive tinge extending on costa to near apex and on inner margin to middle, the terminal half red-brown, the postmedial area with a faint purplish tinge except towards costa, the terminal area yellowish except at apex; postmedial line red-brown with a spot on costa below which it is obsolescent, then excurved to vein 4 where it is bent inwards and oblique to inner margin; subterminal line with a pale striga from costa, then very indistinct, excurved below vein 7 and at middle, then incurved; cilia brown mixed with greyish, with a dark line through them and fuscous patch above middle. Hind wing ochreous whitish, the veins and terminal area suffused with red-brown; cilia brownish at base, whitish at tips; the underside ochreous with faint postmedial brown bar from costa.

♀. Head and thorax red-brown with a faint greyish tinge; abdomen brown with ochreous white segmental lines; fore wing red-brown with a slight greyish tinge, a triangular whitish postmedial spot on costa; hind wing grey-brown.

Ab. 1. ♂. Head, thorax, and fore wing more ochreous yellow, the last with the terminal area and patch at middle of cilia ochreous yellow.—Nilgiris, Ceylon.

Ab. 2. ♂. Head and thorax olive-brown; fore wing with the yellow area strongly tinged with green.—Nilgiris.

Hab. Punjab, Dharmsâla (*Hocking*), 8 ♂, 6 ♀, Allahabad. 1 ♀, Jubbulpur (*F. Butler*), 1 ♀, Manpuri, 1 ♀; Madras, Cuddapah (*Campbell*), 1 ♀, Nilgiris (*Hampson*), 3 ♂, 3 ♀; Ceylon, Colombo (*Nietner*), 2 ♂, 1 ♀; Burma, Moulmein (*Clerk*), 1 ♀ type *imbuta*, Rangoon (*Scott*), 1 ♂. *Exp.* 20–24 millim.

6136. Tarache bicolora.

Acontia bicolora, Leech, Trans. Ent. Soc. 1889 p. 133, pl. ix. ff. 7, 7 *a*.

♂. Head and thorax olive-yellow mixed with some black scales; antennæ fuscous; tarsi dark brown ringed with white; abdomen dark brown with ochreous white segmental lines, the ventral surface whitish. Fore wing olive-yellow overlying black, extending on costa to near apex and on inner margin to middle, the terminal half red-brown with purplish suffusion on postmedial area except towards costa, the inner edge of the dark area bent inwards at vein 6 to the end of cell; postmedial line only defined by the inner edge of the purplish area, incurved below vein 4, the subterminal line only defined by its outer edge and incurved below vein 3; an ochreous striga just before middle of termen; cilia purplish fuscous with white patch at tips at apex. Hind wing dark reddish brown, the cilia ochreous white with a brown line near base; the underside paler with pale yellow medial and postmedial patches on costa.

♀. Head and thorax black-brown with a few yellow scales; abdomen dark brown; fore wing black-brown with some olive-yellow scales on basal area, an oblique olive-yellow medial bar from costa, and triangular pale yellow postmedial spot on costa.

Ab. 1. ♂. Head, thorax, and fore wing paler and less olive-yellow, the last with three subterminal ochreous spots on inner half and a terminal series of black points.

Hab. Japan, Nagasaki (*Leech*), 2 ♂, 1 ♀ type, Satsuma (*Leech*), 2 ♀, Yokohama (*Pryer*), 2 ♂, 1 ♀; Corea, Gensan (*Ito*), 1 ♂, 1 ♀; C. China, Chusan I. (*J. J. Walker*), 1 ♂, Ningpo, 1 ♀, Ichang (*Mrs. Pratt*), 1 ♀, Kiukiang (*Pryer*, *Pratt*), 2 ♀, Chang-yang (*Pratt*), 2 ♂. *Exp.* 22–26 millim.

6137. Tarache detrita. (Plate CLXXII. figs. 19 ♂, 20 ♀.)

Acontia detrita, Butl. Trans. Ent. Soc. 1886, p. 401 (♀).
Acontia clarissa, Butl. Trans. Ent. Soc. 1886, p. 402 (♂).

♂. Head and thorax yellow suffused with olive-green; palpi whitish, brown at tips; lower part of frons whitish; antennæ brown; pectus and legs white, the fore tibiæ and the tarsi brown ringed with white; abdomen red-brown with yellow segmental lines and the anal tuft yellow, the ventral surface white. Fore wing yellow extending on costa to beyond middle and on inner margin to middle, the terminal half red-brown with some purple and white suffusion on postmedial area except towards costa and some yellow on termen except at apex; some olive-yellow suffusion below base of cell; antemedial line diffused, olive-yellow with slight brown mark at costa; the orbicular a faint olive-yellow spot, the

reniform olive-brown defined by dark brown, small, elliptical, placed on the dark area; a slight brown and olive bar from middle of costa; a triangular yellowish white postmedial patch on costa; the postmedial line indistinct, dark, arising at vein 6, excurved to vein 4, then incurved; subterminal line yellowish, hardly traceable except towards tornus to which it is bent outwards; some black points on termen sometimes present; cilia yellow mixed with some brown. Hind wing with the basal half yellow, the terminal half suffused with brown; cilia yellowish at base and tips; the underside uniform yellow.

♀. Fore wing with the basal area more olive leaving a yellow patch on costa; hind wing wholly suffused with brown, the underside with brown discoidal spot and terminal band.

Ab. 1. ♀. Head, thorax, and fore wing paler yellow, the last with narrower brown band before the postmedial line and the terminal area yellow.

Hab. Queensland, Townsville (*Dodd*), 1 ♀, Peak Downs, 1 ♂ type *clarissa*. Gayndah, 1 ♀ type, Brisbane (*Turner*), 1 ♂; N. Australia, Port Darwin (*Lydll*), 1 ♀; W. Australia, Sherlock R. (*Clements*), 4 ♀; N. S. Wales, Parramatta (*Raynor*), 2 ♂. *Exp.* 20–24 millim.

6138. Tarache thapsina. (Plate CLXXII. fig. 21.)

Hyela thapsina, Turner, P. Linn. Soc. N.S.W. xxvii. p. 112 (1902).

Head, tegulæ, and patagia yellow; thorax red-brown; antennæ brown; fore tibiæ and tarsi brown ringed with yellow; abdomen yellow dorsally tinged with red-brown, ventrally whitish. Fore wing yellow, the terminal area red-brown, its inner edge obliquely curved and more or less angled inwards beyond upper angle of cell. Hind wing red-brown, the base and cell yellow; cilia yellow mixed with red-brown at base: the underside orange-yellow, the costal area irrorated with red-brown, diffused curved postmedial and terminal bands.

Ab. 1. Fore wing with postmedial dark point on costa, a yellowish minutely waved postmedial line from cell to inner margin near inner edge of the dark area, and a yellowish subterminal line excurved below vein 7 and at middle and bent outwards to tornus; underside of hind wing without markings.

Hab. Queensland, Townsville (*Dodd*), 1 ♂; N. Australia, Alexandria (*Stalker*), 1 ♂, 3 ♀. *Exp.* 20 millim. Type† in Coll. Turner.

6139. Tarache guttifera. (Plate CLXXII. figs. 22 ♂, 23 ♀.)

Acontia guttifera, Feld. Reis. Nov. pl. 108. f. 26 (1874).

♂. Head and thorax golden yellow; palpi white, black at tips;

frons white with a black bar above; antennæ black; pectus and legs white, the tibiæ and tarsi banded with black, the fore femora black; abdomen yellow, white below. Fore wing golden yellow from inner margin near middle to costa near apex, obliquely cut off towards apex, then strongly incurved, the rest of wing dark chocolate-brown slightly irrorated with grey and without markings. Hind wing golden yellow. Underside of fore wing yellow, the dark area represented by a whitish postmedial patch irrorated with brown from vein 6 to inner margin.

♀. Tegulæ at base and prothorax with black-brown bands, the dorsum of thorax mostly black-brown. Fore wing black-brown slightly irrorated with blue-grey; a yellow patch at base expanding into a short streak below the cell; round antemedial yellow patches on costal and inner areas and a round medial yellow patch on costal area; an oblique elliptical subterminal patch from costa and a rather reniform patch from vein 5 to inner margin. Hind wing with chocolate-brown terminal band, its inner edge irregularly diffused, narrowing to tornus; cilia chocolate-brown, yellowish white towards tornus; underside of fore wing yellow with a forked brown medial band not reaching inner margin, its inner arm not reaching costa and its outer emitting a spur at discal fold; hind wing uniform yellow.

Hab. Angola, Ambriz (*Monteiro*), 1 ♀; Mozambique, Delagoa Bay (*Mrs. Monteiro*), 1 ♂, 1 ♀; Natal, Stanger (*Delvin*), 1 ♂, Victoria Distr. (*Gooch*), 2 ♂, 2 ♀, Duffs Road, 1 ♀, Durban (*Bowker*, *Leigh*), 1 ♂, 1 ♀. *Exp.* 22–24 millim.

6140. **Tarache hemixanthia**, n. sp. (Plate CLXXII. fig. 24.)

♀. Head and thorax pale sulphur-yellow: palpi except at base and antennæ black-brown; pectus and legs black-brown; the coxæ with white patches, the tarsi slightly ringed with white; abdomen dark brown, tinged with fulvous towards base. Fore wing with the basal half pale sulphur-yellow, its outer edge with a nearly straight and erect black line, the terminal half deep cupreous red suffused with silvery purple beyond the postmedial line except towards costa; a small silvery purple spot in cell near inner edge of the dark area and a larger spot with black centre on disco-cellulars; a triangular sulphur-yellow postmedial spot on costa, the indistinct black postmedial line arising from its apex, angled outwards in discal fold, then strongly incurved and with blackish spots beyond it in submedian fold and above inner margin; some minute white points on termen below apex and at middle. Hind wing dark brown with a cupreous red gloss; cilia greyish with a brown line through them; the underside greyish suffused and irrorated with dark brown, an indistinct dark discoidal spot.

Hab. Br. E. Africa, Tanga (*Hollis*), 1 ♀ type. *Exp.* 22 millim.

6141. Tarache semiatra. (Plate CLXXII. fig. 25.)

Acontia semiatra, Smith, J. N.Y. Ent. Soc. x. p. 52 (1902); Dyar, Cat. Lep. N. Am. p. 215.

♀. Head, thorax, and abdomen white tinged with ochreous; palpi except at base and in front brown; fore tibiæ and the tarsi brown ringed with white; pectus and ventral surface of abdomen pure white. Fore wing with the basal half white tinged with ochreous; a subbasal black point on costa; the terminal half blackish tinged with grey and irrorated with white; reniform with very indistinct white annulus, narrowing above and with blackish spot in its lower part; postmedial line dark defined on outer side by ochreous white, on inner area forming a large patch extending to tornus, bent outwards below costa, incurved at discal fold and below vein 4; subterminal line represented by diffused white scales, excurved below vein 7, incurved at discal fold, then excurved to near termen; cilia with a series of minute white points at base, the tips yellowish mixed with brown. Hind wing ochreous white suffused with brown; cilia white, brownish at base; the underside white tinged with brown.

Hab. U.S.A., Arizona, Yuma Co., 1 ♀ co-type, Quartzsite. *Exp.* 24 millim.

6142. Tarache flavonigra.

Rivula flavonigra, Swinh. P.Z.S. 1884, p. 522, pl. 47. f. 15; Hmpsn. Moths Ind. ii. p. 316.

Head and tegulæ fuscous black mixed with some grey; palpi ochreous at base; thorax white tinged with ochreous brown; fore and mid tibiæ and tarsi blackish ringed with white; abdomen ochreous white with segmental brownish bands. Fore wing with the basal area ochreous white with a fuscous patch on base of costa and bounded by the black antemedial line which is slightly excurved at median nervure; the rest of wing fuscous black glossed with grey; orbicular an ochreous white point slightly defined by black; reniform ochreous white, its centre slightly defined by black, lunulate; postmedial line with ochreous spot at costa, then slight, black defined on outer side by ochreous scales, bent outwards below costa, then minutely waved, incurved below vein 4, some white points beyond it on costa; a terminal series of black points defined on inner side by ochreous. Hind wing white tinged with ochreous especially towards termen; cilia white; the underside with the costal area tinged with brown.

Hab. Sind, Karáchi (*Swinhoe*), 1 ♂, 3 ♀ type; Madras, Gooty (*Campbell*), 1 ♀. *Exp.* 18–22 millim.

6143. Tarache acerba. (Plate CLXXII. fig. 26.)

Feuva acerba, H. Edw. Papilio, i. p. 24 (1881); Smith, Cat. Noct. N. Am. p. 302.

Head and thorax black-brown glossed with leaden grey; abdomen dark greyish brown. Fore wing black-brown glossed with leaden grey, the costal area more or less prominently and sometimes the terminal area especially towards tornus irrorated with pale grey; traces of a curved antemedial line formed of black scales; reniform faintly defined by grey, small, elliptical, an indistinct oblique dark bar to it from costa; postmedial line dark and oblique from costa to vein 6, then formed of black scales, strongly incurved below vein 4 and slightly angled outwards at vein 1; subterminal line represented by a few black scales or defined by grey suffusion beyond it; a terminal series of black points. Hind wing dark red-brown, the cilia greyish with a brown line near base.

Hab. U.S.A., California, 1 ♀, Rouge R. (*Walsingham*), 5 ♂, 4 ♀. *Exp.* 20–22 millim.

6144. Tarache nubilata. (Plate CLXXII. fig. 27.)

Tarache nubilata, Hmpsn. Ann. S. Afr. Mus. ii. p. 390 (1902).

♂. Head and thorax white, the tips of tegulæ and the thorax tinged with purplish brown; fore tibiæ and tarsi brown slightly ringed with white; abdomen ochreous, the ventral surface white. Fore wing creamy white mostly suffused with pale purplish and olive-brown; an oblique brown shade from base of costa along median nervure to the antemedial line, which is very indistinct, double, oblique from costa to median nervure where it is angled, then inwardly oblique; orbicular and reniform with their centres slightly defined by brown and incomplete white annuli, round, the former with short white fascia before it; an indistinct oblique olive-brown line from lower angle of cell to inner margin; postmedial line with white patch before and beyond it on costa, olive-brown, excurved from below costa to vein 4, then incurved and with raised black scales on it; subterminal line very indistinct, whitish, excurved below vein 7 and at middle, then very strongly incurved and defined on outer side by red-brown followed by yellowish; a terminal series of blackish points except towards tornus defined on inner side by a white line; cilia red-brown mixed with whitish and with rather darker patches at discal and submedian folds. Hind wing very pale yellow, the termen slightly tinged with rufous; cilia yellowish white with a rufous line through them; the underside with slight rufous discoidal lunule.

Hab. Natal, Durban (*Gooch*), 1 ♂ type. *Exp.* 28 millim.

6145. **Tarache hemiglauca**, n. sp. (Plate CLXXII. fig. 28.)

♀. Head, thorax, and abdomen brownish grey; palpi white at base; pectus, legs, and ventral surface of abdomen white, the tibiæ banded with brown, the tarsi brown ringed with white. Fore wing grey tinged with olive-green, the postmedial area purplish except towards costa; antemedial line olive-green, indistinct, diffused, curved; orbicular and reniform grey, ill-defined, round; postmedial line indistinct and with whitish mark beyond it on costa, then defined by fuscous lunules on inner side becoming a rather broad shade below the cell, excurved to vein 4, then incurved; subterminal line indistinct, whitish defined on inner side by somewhat dentate rufous marks, minutely waved, excurved below vein 7, and at middle, angled inwards at discal fold; a terminal series of black points, except towards apex, defined on inner side by a white line; cilia whitish with a brown line through them and dark patch at discal fold. Hind wing whitish suffused with red-brown especially on terminal area; cilia whitish with a brown line through them; the underside yellowish with dark discoidal spot and diffused postmedial and terminal shades.

Hab. Madras, Nilgiris (*Campbell*), 1 ♀ type. *Exp.* 30 millim.

6146. **Tarache phænna.**

Acontia phænna, Druce, Biol. Centr.-Amer., Het. i. p. 308, pl. 28. f. 22 (1889).

♀. Head and tegulæ white, the palpi at tips, frons, antennæ, and tips of tegulæ rufous; thorax red-brown with a purplish tinge; pectus and legs white, the tarsi tinged with brown; abdomen red-brown, the ventral surface white. Fore wing greyish brown, the terminal area chocolate-brown; the base of costal area ochreous white; subbasal and antemedial lines absent; an oblique white bar from middle of costa; orbicular with faint pale annulus, rounded; reniform a faint round dark mark with whitish striga on its inner edge; a slight oblique dark line from lower angle of cell to inner margin; postmedial line with whitish spots at costa, then dark brown, excurved to vein 4, then incurved and again excurved at vein 1; subterminal line obsolete from costa to vein 4, then chocolate-brown, rather irregular and diffused, incurved, bent outwards to tornus and with yellowish patch beyond it; a terminal series of black striæ except towards apex and tornus, defined on inner side by a few white scales; cilia yellowish mixed with rufous and with dark patch at discal fold. Hind wing red-brown, the cilia yellow with a faint rufous line through them; the underside yellow, a brown discoidal spot, the termen tinged with brown.

Hab. Mexico, Presidio (*Forrer*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 30 millim.

6147. Tarache terminimaculata. (Plate CLXXII. fig. 29.)

Tarache terminimaculata, Grote, Bull. Buff. Soc. Nat. Sci. i. p. 153 (1873); Smith, Cat. Noct. N. Am. p. 301.

♀. Head and thorax grey, the head and tegulæ tinged with brown; pectus and legs white, the fore legs and mid and hind tibiæ and tarsi tinged with brown; abdomen ochreous white slightly irrorated with brown. Fore wing grey slightly irrorated with brown, the terminal area suffused with rufous except at apex; an oblique punctiform black antemedial line from middle of cell to inner margin; orbicular and reniform represented by black points; an incurved white line from lower angle of cell to inner margin with a lunulate chocolate-red patch beyond it with some yellowish scaling on its outer edge; postmedial line represented by an oblique white bar from costa with some black scales from it to the chocolate patch; traces of a rufous subterminal line excurved below vein 7 and at middle and bent outwards to tornus; a terminal series of black points. Hind wing whitish suffused with red-brown, the cilia yellowish white; the underside pale yellow.

Hab. U.S.A., Massachusetts, New York, 1 ♀, Illinois. *Exp.* 30 millim.

6148. Tarache dacia.

Acontia dacia, Druce, Biol. Centr.-Am., Het. i. p. 308, pl. 28. f. 25 (1889).

♀. Head and thorax greyish white slightly tinged with rufous; antennæ brown; tarsi brownish ringed with white; abdomen whitish tinged with rufous and dorsally irrorated with brown. Fore wing greyish tinged with rufous and slightly irrorated with brown; antemedial line rather diffused, black, obliquely curved, not quite reaching the costa; the medial area with an oblique dark shade through the cell to the postmedial line, extending to just below the cell; the orbicular and reniform represented by slight black points; an incurved whitish line from lower angle of cell to inner margin with a chocolate-red lunulate patch beyond it; postmedial line oblique and whitish from costa to vein 6, excurved and dark to vein 4, then strongly incurved whitish and forming the outer edge of the lunulate patch; a terminal series of black points. Hind wing whitish, the costal area and termen tinged with red-brown; the underside ochreous white, the costal area irrorated with a few brown scales.

Hab. Mexico, Jalapa (*Hoege*), 1 ♀, Vera Cruz (*Schumann*), 2 ♀ type, Godman-Salvin Coll.; Panama, Chiriqui, La Chorrera (*Dolby-Tyler*), 1 ♀. *Exp.* 26 millim.

6149. Tarache cratina.

Acontia cratina, Druce, Biol. Centr.-Am., Het. i. p. 309, pl. 28. f. 26 (1889).

♀. Head and thorax red-brown mixed with purplish grey; pectus reddish ochreous; legs chocolate-brown irrorated with whitish, the tarsi ringed with white; abdomen yellow-brown, the ventral surface whitish irrorated with brown. Fore wing purplish grey irrorated with red-brown; an oblique blackish antemedial line from costa to vein 1, slightly bent inwards to costa; orbicular a black point; a very strongly incurved white line from the postmedial line below costa to inner margin with a large comet-shaped chocolate-brown patch beyond it; the postmedial line slight, white and oblique from costa to vein 6, then blackish and dentate to vein 4, then incurved and whitish, forming the outer edge of the comet-mark; subterminal line absent; a terminal series of black points. Hind wing red-brown; the cilia yellowish white at tips; the underside brownish ochreous, the apical area irrorated with brown.

Hab. Mexico, Vera Cruz, Atoyac (*H. H. Smith*), 1 ♀ type, Godman-Salvin Coll. *Exp.* 34 millim.

6150. Tarache phrygionis, n. sp. (Plate CLXXII. fig. 30.)

♂. Head and thorax red-brown mixed with greyish white; pectus and legs whitish tinged with brown, the tarsi slightly ringed with white; abdomen rufous, the anal tuft and ventral surface brownish grey. Fore wing grey-white finely irrorated with brown, the basal half of costal area darker, the terminal area cupreous red becoming greyish at apex, its inner edge very strongly incurved from apex to inner margin near tornus; a faint double brown antemedial line incurved from below costa to median nervure, then excurved; an oblique white bar on the cupreous red area from submedian fold to inner margin just before tornus. Hind wing whitish slightly tinged with brown, the termen tinged with cupreous red; the underside ochreous whitish.

Hab. Argentina, 1 ♂ type, La Rioja (*Giacomelli*), 1 ♂. *Exp.* 26 millim.

Sect. II. Hind wing with veins 3, 4 from cell.

A. Fore wing with oblique white band from costa towards apex to basal part of inner margin.
  a. Fore wing without oblique white bar from costa before middle to the oblique band ..... *jalisana*
  b. Fore wing with oblique white bar from costa before middle to the oblique band.
    a^1. Fore wing with dentate white subterminal line ... *chea*.
    b^1. Fore wing with terminal series of grey spots defined by white ..... *nitidula*.

B. Fore wing without oblique white band from costa to inner margin.
  a. Fore wing with oblique white bar from costa before middle.
    a^1. Hind wing orange ..... *vallengreni*.
    b^1. Hind wing not orange.
      a^2. Fore wing with white patch on basal inner area. *umbrigera*.
      b^2. Fore wing with white streak on base of vein 1... *catenula*.
      c^2. Fore wing with white patch on basal costal area ..... *aniluna*.
  b. Fore wing without oblique white bar from costa before middle.
    a^1. Fore wing with the costal half white to near apex, not interrupted at middle by a dark mark more or less completely defining the inner edge of a white postmedial patch.
      a^2. Fore wing with the inner area dark to base.
        a^3. Fore wing with the terminal area dark ..... *pima*.
        b^3. Fore wing with the terminal area white ..... *antica*.
      b^2. Fore wing with the basal inner area white.
        a^3. Fore wing with olive-brown fascia on base of costa connected with an oblique antemedial bar; hind wing yellow ..... *delecta*.
        b^3. Fore wing with the costal edge olive-brown... *olivacea*.
        c^3. Fore wing with the costal edge not olive-brown.
          a^4. Fore wing with dentate white line beyond the postmedial line on inner area.
            a^5. Fore wing without antemedial grey patch on costal area.
              a^6. Fore wing with the antemedial line absent ..... *cretata*.
              b^6. Fore wing with the antemedial line present ..... *behri*.
            b^5. Fore wing with antemedial grey patch on costal area.
              a. Hind wing white ..... *schwarzi*.
              b. Hind wing fuscous ..... *coquilletti*.
          b^4. Fore wing without dentate white line beyond the postmedial line on inner area.
            a^5. Vertex of head white.
              a^6. Hind wing not yellow.
                a^7. Fore wing with dentate metallic blue line on inner edge of the dark terminal area towards inner margin... *eudrepala*.
                b^7. Fore wing without dentate metallic blue line on inner edge of the dark terminal area.
                  a^8. Fore wing with the dark terminal area interrupted by white at middle ..... *opalinoides*.
                  b^8. Fore wing with the dark terminal area continuous.
                    a^9. Fore wing with the inner edge of the dark area not angled inwards below costa.
                      a^{10}. Fore wing with the dark area extending to just before postmedial line on inner area ..... *[illegible]*

b^{10}. Fore wing with the dark area extending to well before postmedial line on inner area ..... *cyanocraspis.*

b^{9}. Fore wing with the inner edge of the dark area angled inwards below costa.

a^{10}. Fore wing with the reniform a black point ..... *secta.*

b^{10}. Fore wing with the reniform an incomplete black annulus ..... *porphyrea.*

b^{6}. Hind wing yellow..... *citripennis.*

b^{5}. Vertex of head blackish.

a^{6}. Hind wing yellow..... *spangbergi.*

b^{6}. Hind wing not yellow.

a^{7}. Fore wing strongly tinged with flesh-colour.

a^{8}. Fore wing with whitish patch at middle of terminal area..... *rufilincta.*

b^{8}. Fore wing without whitish patch at middle of terminal area ..... *carnescens.*

b^{7}. Fore wing not tinged with flesh-colour.

a^{8}. Hind wing without antemedial fuscous band.

a^{9}. Anal tuft not yellow.

a^{10}. Fore wing with the terminal area tinged with pink ..... *urania.*

b^{10}. Fore wing with the terminal area not tinged with pink... *psaliphora.*

b^{9}. Anal tuft yellow ..... *chrysoproctis.*

b^{8}. Hind wing with antemedial fuscous band .. .. *titania.*

b^{1}. Fore wing with the white costal area interrupted at middle by a dark mark more or less completely defining the inner edge of a quadrate white postmedial patch.

a^{2}. Hind wing yellow .... *gradata.*

b^{2}. Hind wing not yellow.

a^{3}. Fore wing with the orbicular represented by a black point or absent.

a^{4}. Fore wing with the reniform absent ..... *notabilis.*

b^{4}. Fore wing with the reniform annulate.

a^{5}. Vertex of head white or tinged with grey ..... *hortensis.*

b^{5}. Head blackish.

a^{6}. Fore wing of male with the inner edge of the dark area not angled inwards at discal fold ..... *niphogona.*

b^{6}. Fore wing of male with the inner edge of the dark area angled inwards at discal fold .... *caffraria.*

c^{4}. Fore wing with the reniform strongly constricted at middle and angled inwards on median nervure ..... *lucida.*

b^{3}. Fore wing with the orbicular represented by a grey and brown patch ..... *malagassica.*

c^{3}. Fore wing with the orbicular annulate ..... *discoidea.*

c^{1}. Fore wing with irregular truncate conical white postmedial patch on costa.

a^2. Fore wing with black postmedial point on the white costal patch ..... [illegible].
b^2. Fore wing without black postmedial point on the white costal patch.
a^3. Fore wing with the basal area white ..... *margaritata*.
b^3. Fore wing with the basal area almost wholly grey ..... [illegible]
d^1. Fore wing with triangular white postmedial patch on costa ..... [illegible].
c^1. Fore wing with the basal half white, the terminal half dark without white patch on costa ..... *dimidata*.

6151. Tarache jaliscana. (Plate CLXXII. fig. 31.)

Tarache jaliscana, Schaus, J. N.Y. Ent. Soc. vi. p. 118 (1898).
Acontia chea, Druce, Biol. Centr.-Am., Het. ii. p. 493, pl. 95. f. 4 (1898), ♀ nec ♂.

♂. Head fuscous brown; thorax white; fore legs and the tarsi brown, the latter ringed with white; abdomen fuscous brown, white at base and on ventral surface. Fore wing white; a large elliptical greyish fuscous patch on costal area from near base to middle crossed by traces of a curved antemedial line; reniform narrow with grey centre and white annulus, its upper extremity produced, its lower bent inwards; terminal area olive-brown shading to deep purple-grey, its inner edge angled at vein 7 and incurved below the cell and with the rather maculate dark red postmedial line near its inner edge defined on outer side below submedian fold by a slight blue-white line dentate at vein 1; subterminal line represented by a double series of deep blood-red lunulate spots with silvery blue marks beyond them extending to a fine white line just before termen; cilia grey-brown with fine white lines at base and near tips. Hind wing white; the veins brown; the terminal area suffused with brown narrowing to tornus; cilia white.

♀. Hind wing uniform dark reddish brown except the extreme base; cilia white at tips.

Hab. Mexico, Guadalajara (*Schaus*), 1 ♂, Durango (*Becker*). 1 ♀ type *chea* ♀, Godman-Salvin Coll. *Exp.* 36 millim.

6152. Tarache chea.

Acontia chea, Druce, Biol. Centr.-Am., Het. ii. p. 493, pl. 95. f. 3 (1898), ♂.

♂. Head and thorax silvery white; antennæ red-brown; fore legs and the tarsi red-brown, the latter ringed with white; abdomen white with slight brown dorsal bands. Fore wing silvery white; a rounded grey-brown antemedial patch on costa and a small spot on middle of costa; terminal area olive-brown shading to purple-grey, its inner edge angled at vein 7, excurved to vein 4, then incurved and with the indistinct darker postmedial line near its inner edge followed by a slight dentate white line arising at vein 4 and incurved below vein 3, its teeth confluent with the similar but not dentate subterminal line bent outwards to tornus; some blue-white irroration

at apex; a fine brown terminal line defined by white on inner side; cilia white, red-brown at apex. Hind wing semihyaline white, the termen tinged with brown from apex to vein 2.

Hab. Mexico, Durango (*Becker*), 2 ♂ type, Godman-Salvin Coll. *Exp.* 28–32 millim.

6153. Tarache nitidula. (Plate CLXXII. fig. 32.)

Noctua nitidula, Fabr. Mant. Ins. ii. p. 126 (1787).
Phalæna catena, Sowerby, Brit. Misc. p. 29, pl. 14 (1806); Curt. Brit. Ent. pl. 276; Steph. Ill. Brit. Ent., Haust. iii. p. 116; Hmpsn. Moths Ind. ii. p. 312.
Desmophora elegans, Steph. Cat. Brit. Ins., Lep. p. 109 (1829), non descr.

Head and thorax silvery white; palpi above, antennæ, fore legs, and the tarsi brownish; abdomen white. Fore wing silvery white; an oblique quadrate olive-brown patch from costa near base to median nervure and a triangular patch on middle of costa; the terminal area broadly olive-brown shading to purple-grey with the indistinct dark curved postmedial line near its inner edge commencing on the white area just below costa; a curved white subterminal line with very short streaks on the veins from it to a fine white line just before termen enclosing a series of spots, the spot above tornus being blackish; cilia white tinged with brown at tips. Hind wing white, the veins of terminal area tinged with brown; the termen suffused with brown, narrowing to tornus or confined to apical area; cilia white with a brown line through them towards apex.

Hab. Gold Coast, Accra, 1 ♀; Abyssinia, Atbara (*Gerrard*), 1 ♂, 1 ♀; Portuguese E. Africa, Beira (*Sheppard*), 1 ♂; Natal, Victoria Distr. (*Gooch*), 2 ♀; Punjab, Wuzeerabad (*Hearsay*), 2 ♂; Sind, 1 ♂; Bombay, 1 ♀, Kanara, 1 ♀; Madras, Coimbatore (*Walhouse*), 1 ♀; Burma, Thayetmyo (*Watson*), 1 ♀. *Exp.* 30–40 millim.

6154. Tarache vallengreni. (Plate CLXXIII. fig. 1.)

Acontia wallengreni, Auriv. Œfv. Ak. Förh. xxxvi. (7) p. 61 (1879).

♀. Head and thorax grey-brown; abdomen red-brown. Fore wing greyish brown; antemedial line indistinct, dark, excurved to vein 1, then erect; an oblique white band from costa beyond the antemedial line to median nervure at lower angle of cell; reniform with brown centre and white annulus slightly defined by black, confluent with the white band; postmedial line with oblique white striga from costa, then blackish, incurved at discal fold and below vein 4; subterminal line white, slightly excurved below vein 7 and at middle and bent outwards to tornus, with black spots beyond it below apex and above tornus; a terminal series of black striæ defined on inner side by a white line; cilia white mixed with rufous. Hind wing orange with terminal brown band narrowing

to tornus and leaving some orange before the dark terminal line: cilia rufous at base, white at tips.

Hab. Damaraland, type † ♀ in Mus. Stockholm. *Exp.* 34 millim.

6155. Tarache umbrigera. (Plate CLXXIII. figs. 2 ♂, 3 ♀.)

Acontia umbrigera, Feld. Reis. Nov. pl. 108. f. 34 (1874).
Acontia trimaculata, Auriv. Œfv. Ak. Förh. xxxvi. (7) p. 60 (1879).

Head white, the antennæ brown; tegulæ and patagia white, the tips of former and upper edge of latter brownish; vertex of thorax brownish with a fine white dorsal line; tarsi brown ringed with white; abdomen white dorsally tinged with brown except towards extremity. Fore wing purplish grey suffused in parts with olive-green; a silvery white patch with curved upper edge on basal half of inner area with two slight subbasal white striæ from it to costa followed by a very slight obliquely curved line; an oblique quadrate silvery white patch from costa before middle, extending to just below cell, its extremity produced to a point below the reniform, which is a small lunule faintly defined by silvery blue and attenuated below; a truncate conical silvery white postmedial patch from costa to vein 6, the indistinct dark postmedial line with very slight blue-white line on its outer edge arising from it, strongly incurved below vein 4; a white subterminal line, obsolescent towards costa, below vein 5 produced as short streaks on the veins to a fine white line just before termen enclosing a series of spots not quite reaching the apex, the subterminal line ending on termen at vein 1; cilia brown on apical half, white towards tornus. Hind wing white, the termen suffused with reddish brown narrowing to a point at vein 2, in female wholly tinged with brown; cilia white: the underside white with traces of two brownish postmedial bars from costa and the apex brownish.

Hab. Br. E. Africa (*Gregory*), 1 ♂; Angola, Kinsembo, 1 ♀; Damaraland; Bechuanaland, N'Gami (*Lugard*), 1 ♂, 2 ♀; Cape Colony, Murraysburg. *Exp.* 32–36 millim. Type † (*trimaculata*) in Mus. Stockholm.

6156. Tarache catenula. (Plate CLXXIII. fig. 4.)

Euphasia catenula, Wlk. xxxiii. 780 (1865); Hmpsn. Moths Ind. ii. p. 312.

Head and thorax white dorsally suffused with red-brown; tarsi brownish ringed with white; abdomen white dorsally tinged with red-brown. Fore wing purplish grey suffused with olive-brown; an oblique white streak on basal part of vein 1; an oblique white band from costa before middle to just below median nervure, its extremity produced to a point at lower angle of cell; a quadrate white postmedial patch from costa to vein 6, its inner edge slightly angled below the costa, the rather punctiform black postmedial

line arising from it and strongly incurved below vein 4; a fine white subterminal line slightly excurved below vein 7 and at middle, and bent outwards to termen just above tornus, below vein 5 produced as slight white streaks on the veins to a fine white line before the terminal series of black points which do not reach apex; cilia grey-brown with a dark line at middle and white patch above tornus. Hind wing white with red-brown terminal band narrowing to a point at tornus, in female wholly tinged with red-brown; cilia white; the underside white with traces of a rufous patch on middle of costa and of a curved postmedial line from costa to vein 2, the termen tinged with rufous from apex to submedian fold.

Hab. Sind, Karáchi (*Swinhoe*), 1 ♂; Madras, Coimbatore (*Walhouse*), 1 ♂, 2 ♀ type; Ceylon, Hambantota (*Pole*), 2 ♀. *Exp.* 28–34 millim.

6157. Tarache aniluna. (Plate CLXXIII. fig. 5.)

Acontia aniluna, Smith, J. N.Y. Ent. Soc. xiii. p. 209 (1905).

♀. Head, tegulæ, patagia, and prothorax white; palpi at tips, frons, antennæ, tips of patagia, and rest of thorax grey-brown; abdomen white suffused with brown; pectus, legs, and ventral surface of abdomen white, the fore legs in front and tarsi brownish. Fore wing olive-brown with a greyish gloss; a white patch on basal area, its outer edge angled below costa and at vein 1; traces of a sinuous greyish antemedial line; a very oblique white patch from middle of costa to inner edge of reniform, which is defined by blackish except below, elliptical; an indistinct oblique sinuous line from lower angle of cell to inner margin; a conical postmedial white patch on costa, the dark postmedial line arising from its lower extremity, and incurved below vein 4 to lower edge of reniform; subterminal line white, almost obsolete on costal half, excurved to termen at middle, then incurved; a terminal series of small black spots; cilia with white patch at middle and slightly intersected with white below apex. Hind wing cupreous brown slightly irrorated with white; cilia white tinged at base with brown from apex to discal fold; the underside white, the costal and terminal areas tinged with brown, an indistinct discoidal spot and diffused postmedial line from costa to vein 4.

Hab. U.S.A., Arizona, Baboquavaria Mts. (*Poling*), 1 ♀ cotype. *Exp.* 28 millim. Prof. Smith suggests that this may be the female of *T. pima*.

*6158. Tarache pima.

Acontia pima, Smith, J. N.Y. Ent. Soc. xiii. p. 209 (1905).

♂. Head, tegulæ, and prothorax white, the rest of thorax steel-grey with a metallic tinge; abdomen whitish tinged with brown. Fore wing with the costal area to subterminal line and the upper

half of cell white, the rest of wing grey suffused with olive and mixed with some iridescent blue and violet, the violet scales forming faint antemedial, medial, and postmedial lines; orbicular represented by a slight white indentation of the dark area; reniform whitish; subterminal line indicated by scattered white and bluish scales and a bar from tornus; a terminal series of velvety black marks; cilia-olive grey with a white patch between veins 4 and 2. Hind wing whitish with a fuscous terminal band.

Hab. U.S.A., Arizona, Pima Co., Baboquavaria Mts. *Exp.* 24–25 millim. This species is unknown to me.

6159. Tarache antica. (Plate CLXXIII. fig. 6.)

Acontia antica, Wlk. Trns. Ent. Soc. (3) i. p. 90 (1862).
Tarache acontina, Mab. Ann. Soc. Ent. Fr. 1899, p. 729.
Tarache semiplumbea, Hmpsn. Ann. S. Afr. Mus. ii. p. 384 (1902).

Head and tegulæ white, the palpi at tips, frons, antennæ, and tips of patagia tinged with red-brown; thorax dark red-brown; pectus and legs white, the fore tibiæ and the tarsi brown ringed with white; abdomen red-brown, the ventral surface white. Fore wing deep red-brown suffused with some silvery grey; a large creamy white patch on basal costal area with a dark subbasal point on costa; antemedial line dark brown, bent inwards to costa; a large semicircular creamy white patch on middle of costal area with a dark point at middle of costa; tufts of dark scales at middle of cell and on discocellulars; a small white postmedial spot on costa; postmedial line represented by a series of blackish marks, arising at vein 7, and strongly incurved below vein 4; terminal area creamy white except at apex; subterminal line white and minutely dentate on costal area, then represented by the contrast between the brown and white areas, excurved below vein 7 and at middle, then incurved and bent outwards to tornus; a terminal series of black points; cilia yellowish white with a black spot above middle. Hind wing yellowish white with brown discoidal spot and terminal band, in female suffused with red-brown especially towards termen; cilia yellowish white; the underside yellowish white, a dark discoidal lunule and diffused almost confluent postmedial and terminal bands.

Hab. E. Africa, type † ♂ *acontina* in Coll. Mabille; Transvaal, Johannesburg (*Cooke*), 1 ♂; Natal, Victoria Distr. (*Gooch*), 2 ♀; Cape Colony, Bedford (*Weale*), type † ♀ *semiplumbea* in Coll. Druce. *Exp.* 24–26 millim. Type † ♀ in Mus. Oxon.

6160. Tarache delecta. (Plate CLXXIII. fig. 7.)

Acontia delecta, Wlk. xii. 799 (1857); Smith, Cat. Noct. N. Am. p. 301.
Acontia metallica, Grote, Proc. Ent. Soc. Phil. iv. p. 527, pl. ii. f. 7 (1865).

♂. Head and tegulæ dark red-brown, the latter with leaden-grey line near tips; palpi white at base; thorax creamy white,

the dorsum dark brown, the tibiæ and tarsi banded red-brown and white; abdomen yellow, the base and ventral surface whitish, dorsal and lateral series of black bars. Fore wing creamy white; a dark red-brown fascia tinged with leaden grey on base of costa, ending in an oblique bar to middle of cell with some yellowish on its outer edge; a rufous postmedial striga from costa; an oblique deep chocolate-red band from apex to inner margin before tornus, its edges sinuous, some olive on its inner edge from vein 6 to inner margin; postmedial line silvery blue, arising at vein 6, minutely waved, incurved below vein 4; subterminal line represented by a series of silvery blue spots; a series of black points just before termen; cilia brown with a grey gloss on apical half, yellowish white towards tornus. Hind wing pale yellow with some brown spots on apical part of termen; cilia yellowish white; the underside wholly yellow.

♀. Fore wing with the antemedial bar curved and extending to submedian fold; hind wing with irregular brown band from apex to vein 2 and spot in submedian fold.

Hab. U.S.A., 1 ♂, 1 ♀ type, New Jersey and south to Florida and Texas. *Exp.* 34 millim.

Larva. Weeks, Ent. Am. iv. p. 46; Beuten. Bull. Am. Mus. N. H. iv. p. 68. Head brown with irregular black spots. Body enlarged before the middle, without feet on joints 7 and 8; brown with black tubercles and a row of white subventral spots. Food-plant: *Hibiscus*.—H. G. D.

6161. Tarache olivacea.

Cilix olivacea, Hmpsn. Ill. Het. B. M. viii. p. 63, pl. 142. f. 9 (1891); id. Moths Ind. ii. p. 313.

Head and tegulæ olive-brown; thorax white tinged with brown; abdomen whitish suffused with brown. Fore wing with the basal and costal areas silvery white, the costa itself olive-brown, the apical area tinged with yellow, the rest of wing olive-brown suffused with some blue-white and edged above by diffused yellow; traces of a brownish discoidal lunule defined by white; postmedial line whitish defined on each side by some yellowish, oblique, sinuous, from discal fold to inner margin; some oblique white striæ from costa towards apex; a terminal series of slight dark lunules defined on inner side by a waved white line; cilia white tinged with brown. Hind wing olive-brown, the basal area in female whitish; cilia whitish at tips; the underside white tinged and irrorated with brown, a brown discoidal lunule and terminal line.

Hab. C. China, Shanghai (*Pryer*), 3 ♂; Madras, Nilgiris (*Hampson*), 1 ♀ type; Christmas I. (*Andrews*), 1 ♂. *Exp.* 20–26 millim.

6162. Tarache cretata. (Plate CLXXIII. fig. 8.)

Tarache cretata, Grote and Rob. Trans. Am. Ent. Soc. iii. p. 181, pl. ii. f. 78 (1868); Smith, Cat. Noct. N. Am. p. 300.
Acontia neocula, Smith, Trans. Am. Ent. Soc. xxvii. p. 75 (1900); Dyar, Cat. Lep. N. Am. p. 214.

Head and thorax white; palpi except at tips and antennæ tinged with brown; fore tibiæ and the tarsi tinged with brown; abdomen white slightly tinged with ochreous brown. Fore wing silvery white; a slight greyish spot on costa above end of cell usually present; terminal area olive-brown with a cupreous gloss, its inner edge erect from costa to vein 6, then strongly incurved; a slight incurved dentate white postmedial line from vein 3 to inner margin; a fine white subterminal line, excurved below vein 7 and dentate at veins 4, 3, then incurved; a fine white line just before termen; cilia white with some brown at apex. Hind wing white with some brown suffusion at apex, the termen tinged with brown to vein 2; the underside wholly white.

Hab. U.S.A., Texas, 3 ♂, 1 ♀, Colorado, Utah, Bluff, New Mexico, Hot Springs, 1 ♀, Arizona, Gila Co. Globe (*Kunzé*), 1 ♂.
Exp. 24–26 millim.

*6163. Tarache behri. (Plate CLXXIII. fig. 9.)

Acontia behrii, Smith, Trans. Am. Ent. Soc. xxvii. p. 76 (1900).

♀. Head, thorax, and abdomen white; palpi brown at tips; antennæ brown; fore tibiæ and the tarsi brown ringed with white. Fore wing creamy white; antemedial line double, indistinct except at costa, waved, oblique; small medial and postmedial brown spots on costa; the terminal area olive-brown leaving some creamy white on middle of termen, its inner edge angled inwards at vein 6 and below vein 4 incurved to middle of inner margin; postmedial line slight and oblique from the costal spot to vein 6, then dark, incurved at discal fold, angled outwards at veins 4, 3, then incurved and double, a fine white line beyond it on the dark area; subterminal line creamy white, excurved below vein 6 and at middle, then incurved, the area beyond it dark except at middle; a terminal series of black points and striæ; cilia creamy white, brown at apex and tornus. Hind wing white faintly tinged with brown, the terminal area suffused with cupreous brown; cilia white tinged with brown at apex; the underside creamy white, traces of a curved brownish postmedial line from costa to discal fold, the termen tinged with brown from apex to vein 2.

Hab. U.S.A., California, Arizona (*Poling*), 1 ♀ in Coll. J. B. Smith
Exp. 30 millim.

6164. Tarache schvarzi. (Plate CLXXIII. fig. 10.)

Acontia schwarzii, Smith, Trans. Am. Ent. Soc. xxvii. p. 73 (1900); Dyar, Cat. Lep. N. Am. p. 214.

Head and thorax white; palpi tinged with brown except at base; antennæ brown; fore tibiæ and the tarsi brown ringed with white; abdomen white dorsally tinged with ochreous. Fore wing silvery white; a diffused grey patch on costa before middle with the slight grey antemedial line just beyond it, excurved to submedian fold, then incurved; a grey spot on middle of costa; reniform a narrow lunule with faint white annulus, its lower part filled in with grey or almost obsolete; terminal area olive-brown shading to purple-grey, some yellowish on its inner edge which is strongly angled at vein 6 and slightly beyond the reniform, then incurved and with the indistinct dark postmedial line near its inner edge followed by a fine dentate white line arising at vein 2; subterminal line white, excurved below vein 7 and at middle; some blue-white irroration at apex; a fine white line just before termen; cilia white, red-brown at apex. Hind wing white, the termen suffused with red-brown from apex to vein 2.

Hab. U.S.A., New Mexico, Mesilla (*Cockerell*), 1 ♀, Gallinas Cañon (*Oslar*), 2 ♂, 2 ♀, Arizona (*Poling*), 1 ♂, 1 ♀, Catalina Springs, Phœnix. *Exp.* 28–32 millim.

*6165. Tarache coquilletti. (Plate CLXXIII. fig. 11.)

Acontia coquillettii, Smith, Trans. Am. Ent. Soc. xxvii. p. 74 (1900); Dyar, Cat. Lep. N. Am. p. 214.

♀. Head, thorax, and abdomen white with a slight creamy tinge. Fore wing creamy white from base to postmedial line, on costa extending almost to subterminal line, the terminal area mottled with grey; antemedial line represented by diffused double grey marks on costa and a patch in cell; orbicular absent, reniform an elliptical yellow spot; a medial grey patch on costa; postmedial line obsolete except on the dark area below vein 3 where it is whitish and dentate; the inner edge of terminal area curved inwards from discal fold to inner margin before postmedial line; subterminal line fine, white and defined by black and metallic blue scales on the dark apical area, then merged in the white terminal area; a grey terminal line defined on inner side by a yellowish line; cilia creamy white with a grey line through them from apex to vein 3. Hind wing fuscous with the cilia white. Underside of fore wing fuscous with a yellowish patch on costa before apex, the cilia white; hind wing fuscous, whitish at base.

Hab. California, Los Angeles (*Coquillett*). *Exp.* 25 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

*6166. Tarache eudryada. (Plate CLXXIII. fig. 12.)

Acontia eudryada, Smith, J. N.Y. Ent. Soc. xiii. p. 210 (1905).

♀. Head, thorax, and abdomen white. Fore wing white; antemedial line represented by a grey shade on costa; a small triangular grey shade at middle of costa; a grey and olive band from apex to inner margin beyond middle, the terminal area remaining white except at apex, its inner edge excurved and with a golden yellow shade, and angulate metallic blue line reduced to irroration towards apex. Hind wing blackish, paler at base; cilia whitish. Underside of fore wing suffused with black; hind wing whitish.

Hab. U.S.A., S. Arizona (*Poling*). *Exp.* 26 millim. This species is unknown to me, figured from a drawing from type in Coll. J. B. Smith.

6167. Tarache opalinoides. (Plate CLXXIII. fig. 13.)

Acontia opalinoides, Guen. Noct. ii. p. 219 (1852); Hmpsn. Moths Ind. ii. p. 311.
Calophasia postica, Wlk. xxxiii. 764 (1865).

Head and thorax pure white; palpi grey except at base; antennæ brownish; fore tibiæ and the tarsi brown ringed with white; abdomen white with dorsal greyish bands, the anal tuft tinged with yellowish. Fore wing pure white; subbasal line grey, double, waved, from costa to submedian fold; antemedial line grey, double, waved; orbicular defined by grey points at sides; reniform slightly defined by black, incompletely hoop-shaped, open below; a small triangular grey spot at middle of costa and some grey suffusion beyond the reniform; patches of red-brown and silvery blue scales on apical area and on inner area from lower angle of cell to tornus; postmedial line represented by a dark point on costa, an indistinctly double minutely waved line from below costa to inner margin, very strongly incurved below vein 4 to below end of cell and with some raised black scales on it in submedian interspace; subterminal line represented by faint whitish marks defined on inner side by slight blackish marks on the dark areas; a terminal series of black striæ; cilia white with some brown spots towards apex. Hind wing semihyaline white, the termen suffused with brown narrowing to tornus or confined to apical area; the underside wholly white.

Hab. Br. E. Africa, Taveta (*Rogers*), 1 ♂, 3 ♀, N'jempo (*Gregory*), 1 ♀; Bengal, Calcutta, 1 ♂; Bombay, Kutch, 1 ♂; Madras, Gooty (*Campbell*), 1 ♂, Coimbatore (*Walhouse*), 1 ♂, 1 ♀ type *postica*; Burma, Myingyan (*Watson*), 2 ♂, Thayetmyo (*Coryn*), 1 ♀. *Exp.* 22–30 millim.

6168. Tarache vahlbergi.

Acontia vahlbergi, Wllgrn. Anteckn. i. Zool. i. p. 58 (1856); id. Svensk. Vet.-Akad. Handl. p. 67 (1864).
Acontia urbani, Feld. Reis. Nov. pl. 108. f. 35 (1874).

♂. Head and thorax white; palpi and antennæ tinged with brown; fore tibiæ and the tarsi brownish ringed with white; abdomen white with faint greyish dorsal bands. Fore wing pure white; subbasal line pale brownish grey, double, waved, from costa to submedian fold; antemedial line double, waved, erect; orbicular faintly defined by grey-brown at sides and with a triangular mark above it on costa; terminal area brownish shading to purple-grey, its inner edge strongly incurved below end of cell and with the indistinctly double brownish postmedial line near its inner edge with tufts of raised blackish scales on it below veins 4, 3, 2, a white point beyond it on costa; subterminal line defined by somewhat dentate cupreous-red marks on its inner side, obsolescent towards costa, white on inner half, excurved below vein 7 and at middle: a terminal series of black striæ slightly defined on inner side by white at middle; cilia white at middle, purplish towards apex and at tornus. Hind wing semihyaline white with a dark terminal band narrowing to tornus or confined to apical area; the underside with dark spot at apex.

Hab. Gold Coast, Accra (*Carter*), 1 ♂; Nigeria, Borgu, Yelwa L. (*Migeod*), 3 ♂; Natal, Tsipingo (*Marshall*), 1 ♂, Durban (*Trimen, Gooch*), 4 ♂. *Exp.* 28 millim.

Larva. Red-brown freckled with blackish, crimson, and white; warts and stigmata blackish; 1st two pairs of prolegs absent.

6169. Tarache cyanocraspis, n. sp. (Plate CLXXIII. fig. 14.)

♂. Head and thorax white mixed with some grey; palpi fuscous at tips; antennæ brown; fore tibiæ and the tarsi brown, the latter ringed with white; abdomen ochreous white with dorsal brown bands. Fore wing pure white; subbasal line olive-grey, double, waved, from costa to submedian fold; antemedial line olive-grey, double, waved, confluent with a patch on medial part of costal area; a slight black discoidal striga with a small triangular olive-grey spot above it on costa; terminal area olive-brown shading to deep purple-grey, its inner edge excurved from costa to vein 4, then strongly incurved below the cell to near antemedial line and with the indistinctly double sinuous dark postmedial line near its inner edge with tufts of raised metallic blackish scales on it below veins 4, 3, 2; subterminal line represented by a series of somewhat dentate deep cupreous-red marks with a slight waved white line beyond them on inner half and a white striga at costa; a terminal series of black striæ slightly defined on inner side by white except towards apex; cilia white at middle, dark towards apex and tornus. Hind wing semihyaline white with a brown

patch at apex and terminal line to vein 2; the underside with postmedial dark striga from costa.

Hab. Uganda, Victoria Nyanza (*Hannington*), 1 ♂; Mashona-land (*Dobbie*), 1 ♂ type. *Exp.* 32 millim.

6170. Tarache secta. (Plate CLXXIII. fig. 15.)

Acontia secta, Guen. Noct. ii. p. 221 (1852).

♂. Head, thorax, and abdomen white; antennæ brown; fore tibiæ and the tarsi brown, the latter ringed with white. Fore wing pure white; subbasal line represented by a slight grey-brown striga from costa; antemedial line grey-brown, double, waved, erect; orbicular represented by slight grey-brown spots on its inner and outer edges, the reniform by a black discoidal point; a grey-brown spot on middle of costa; terminal area grey-brown tinged with cupreous red, its inner edge angled at vein 7 and incurved below end of cell; postmedial line represented by a small brown spot on costa on the white area and an indistinctly double lunulate black line on the dark area, strongly incurved below vein 4, a white point beyond it on costa; subterminal line white, defined on inner side by slight blackish marks, excurved below vein 7 and at middle; a terminal series of slight black lunules defined on inner side by white; cilia white with brown spots towards apex and at tornus. Hind wing semihyaline white; a terminal brown band narrowing to tornus; cilia white; the underside with brown spot on middle of costa and bar from costa beyond middle.

Hab. Abyssinia, Atbara (*Gerrard*), 1 ♂. *Exp.* 30 millim.

6171. Tarache porphyrea. (Plate CLXXIII. fig. 16.)

Tarache porphyrea (♂), Butl. P. Z. S. 1898, p. 420.

♂. Head and thorax pure white, the metathorax with some grey scales at base; palpi at tips and antennæ brownish; fore femora brown above, the tibiæ and tarsi banded brown and white; abdomen white dorsally slightly tinged with brown. Fore wing pure white to postmedial line, before which there are olive-grey patches on costa and beyond the cell; subbasal line olive-grey, double, from costa to submedian fold; antemedial line olive-grey, double, waved, erect; reniform represented by slight black striæ at sides; postmedial line double, filled in with white towards costa, below which it is slightly bent outwards. Outer line, slightly sinuous, below vein 4 incurved to below end of cell, the area beyond it red-brown suffused with silvery purple and with some white points on costa; subterminal line represented by slight white marks defined on inner side by obscure somewhat dentate black marks, angled outwards below vein 7 and slightly dentate at middle; the terminal area irrorated with silvery blue and with

whitish patch at middle; a terminal series of black striæ; cilia white at middle, blackish towards apex and at tornus and tipped with white below apex. Hind wing pure white with small black-brown apical patch continued to vein 2 as a line with minute streaks at extremities of veins.

♀. Head and thorax creamy white suffused with olive-brown; fore wing creamy white, the costal half suffused with olive-brown to end of cell, the orbicular represented by a whitish point; hind wing dark brown, the cilia brown at base, whitish at tips; the underside brownish white with diffused curved postmedial line and terminal band.

Hab. Gold Coast, Accra (*Carter*), 1 ♀; Br. E. Africa, Neugia (*Crawshay*), 1 ♂, Voi (*Betton*), 1 ♀ type; Bechuanaland, N'Gami (*Lugard*), 1 ♀. *Exp.* 22–24 millim.

6172. Tarache citripennis. n. sp. (Plate CLXXIII. fig. 17.)

Head and thorax creamy white; palpi at tips, lateral spots on frons, and the antennæ black; fore and mid tibiæ and tarsi banded black and white; abdomen pale yellow, the base and ventral surface white. Fore wing creamy white; subbasal line grey, double, waved, from costa to submedian fold; antemedial line grey with blackish spots at costa, double, waved; orbicular represented by a small grey spot, the reniform by a black striga on inner side and minute point at upper extremity; a curved grey bar from middle of costa and a small postmedial spot on costa; terminal area olive-grey shading to purple-grey suffused with red towards termen, its inner edge slightly angled outwards at vein 6 and strongly incurved below vein 4; postmedial line arising at the angle at vein 6, indistinctly double filled in with some white, minutely waved, incurved below vein 4 and with a black and silvery blue mark before it in submedian fold; subterminal line slight, white defined on inner side by deep red marks and by black marks above and below vein 6, excurved below vein 7, dentate at veins 4, 3 and bent outwards to tornus; a white patch beyond it below middle; a terminal series of small black lunules; cilia grey with a white patch below middle. Hind wing pale golden yellow, the cilia white.

Hab. Natal, Estcourt (*Hutchinson*), 1 ♂ type; Basutoland, Maseru (*Crawshay*), 1 ♀. *Exp.* 38 millim.

*6173. Tarache spangbergi. (Plate CLXXIII. fig. 18.)

Acontia spängbergi, Auriv. Œfv. Ak. Förh. xxxvi. (7) p. 62 (1879).

♂. Head blackish; thorax creamy white, the fore tibiæ and the tarsi brown ringed with white; abdomen yellowish white. Fore wing creamy white with a slight ochreous tinge; subbasal line represented by double grey striæ from costa; a slight grey streak

on base of vein 1; antemedial line double, grey, waved, obsolescent on inner area; orbicular absent; reniform defined by grey, round, with an oblique greyish bar from costa to it and another beyond it; terminal area greyish brown, its inner edge obliquely excurved from costa to vein 4, then strongly incurved to inner margin: postmedial line indistinctly double and minutely waved, forming the inner edge of the dark area to vein 4, then incurved; subterminal line indistinct, whitish, minutely waved, with a small blackish spot beyond it below vein 3; a terminal series of black striæ; cilia grey-brown with whitish patch at middle. Hind wing pale yellow, the termen suffused with reddish brown narrowing to a point at tornus; cilia yellowish white.

Hab. Damaraland, type † ♂ in Mus. Stockholm. *Exp.* 30 millim.

6174. **Tarache rufitincta**, n. sp. (Plate CLXXIII. fig. 19.)

♀. Head black-brown; thorax whitish tinged with flesh-colour; tarsi brown ringed with white; abdomen reddish ochreous. Fore wing whitish tinged with flesh-colour; subbasal line indistinct, greyish, double, waved, from costa to submedian fold; antemedial line greyish, double, waved; reniform defined by slight black bars at sides; a greyish patch on middle of costa; postmedial line with a small greyish spot at costa, slightly bent outwards below costa, then blackish, indistinctly double, and minutely waved, slightly incurved at discal fold and below vein 4 bent inwards to below end of cell, the area beyond it brown mixed with silvery purple; subterminal line indistinct, whitish, defined on inner side by slight black and brown marks which are rather elongate below costa, excurved below vein 7 and at middle; terminal area with a white patch at middle; a terminal series of black striæ; cilia white with patches of blackish towards apex and at tornus. Hind wing ochreous white suffused with fuscous brown, especially towards termen; cilia yellowish white, tinged with brown at base at apex; the underside ochreous white slightly irrorated with brown and with diffused postmedial and terminal dark bands.

Hab. Madras, Gooty (*Campbell*), 1 ♀ type. *Exp.* 22 millim.

6175. **Tarache carnescens**, n. sp. (Plate CLXXIII. fig. 20.)

♂. Head greyish fuscous, the palpi white except at tips, the antennæ brown; thorax pinkish white with some black scales on vertex and at base of metathoracic crest; pectus and legs white, the fore tibiæ and the tarsi brown ringed with white; abdomen white with ochreous segmental lines. Fore wing white tinged with pink; subbasal line ochreous, double, waved, from costa to submedian fold; antemedial line double, waved; orbicular absent; reniform slightly defined by black, hoop-shaped, open below; an oblique ochreous mark on middle of costa; terminal area silvery

purple shading to olive on inner edge which is excurved to vein 4, then strongly incurved to below end of cell; postmedial line represented by an oblique ochreous mark from costa on the white area, then by a sinuous dark line strongly incurved below vein 4; subterminal line faint, whitish, defined on inner side by slight cupreous red marks towards costa and tornus, excurved below vein 7 and at middle and bent outwards to tornus; a terminal series of black striæ; cilia whitish mixed with brown towards apex and tornus. Hind wing white, the termen tinged with olive ochreous from apex to vein 2; the underside white, the costa faintly tinged with ochreous.

Hab. Br. E. Africa, Sabaki R. (*Gregory*), 1 ♂ type. *Exp.* 26 millim.

6176. Tarache urania.

Acontia urania, Friv. Tarsas. Tud. Akad. Evkönyv. ii. p. 274, pl. 7. fig. 10 (1835); Frr. Neue Beitr. pl. 413. ff. 3, 4; Herr.-Schäff. Eur. Schmett., Noct. f. 227; Staud. Cat. Lep. pal. p. 225.
Charielea eversmanni, Kol. Mel. Ent. pl. 18. f. 3 (1846).

♂. Head brown tinged with pink, the palpi white at base; thorax creamy white, the tibiæ and tarsi brownish ringed with white; abdomen white tinged with ochreous. Fore wing creamy white tinged with ochreous, especially towards costa, and slightly with pink; subbasal line brownish, double, waved, from costa to submedian fold; antemedial line brownish, double, waved, obsolescent on inner area; orbicular a small round black annulus; reniform elliptical, partially defined by black, otherwise indistinctly defined; a brownish spot on middle of costa and a small spot beyond the middle; terminal area red-brown shading to pink and with some silvery blue suffusion, its inner edge with some olive at middle, obliquely excurved to vein 3, then retracted to below end of cell and slightly angled outwards at vein 1, defined by a black line below the cell and with some bluish scales beyond it in submedian fold; subterminal line indistinct, yellowish, somewhat dentate below vein 4, some slight black marks beyond it below costa; a terminal series of slight black lunules defined on inner side by yellowish; cilia pink and rufous with a slight dark line at middle. Hind wing white, the veins tinged with rufous, the terminal area suffused with rufous; cilia white tinged with rufous at base; the underside white, a small brown discoidal spot, the termen tinged with brown from apex to vein 2.

♀. Hind wing more uniformly suffused with red-brown.

Hab. ? Sicily; Hungary, Leech Coll.; Bulgaria; Armenia; Kurdistan; Asia Minor, Frey and D'Emmick Colls., Brussa, Zeller Coll., Pontus, Bithynia, Taurus; Syria, Leech Coll., Mardin. *Exp.* 28–32 millim.

Larva. Kirby, Butt. & Moths Eur. p. 273; Hffm. Raup. p. 140.
Violet-brown. Food-plant: *Althæa cannabina*. 5 & 7.

6177. **Tarache psaliphora**, n. sp. (Plate CLXXIII. fig. 21.)

♂. Head pale purplish fuscous; palpi white at base; thorax creamy white with some grey on vertex; fore tibiæ and the tarsi brown ringed with white; abdomen white dorsally suffused with brownish ochreous. Fore wing creamy white; subbasal line pale olive-grey, double, waved, from costa to submedian fold; antemedial line pale olive-grey, double, waved; reniform slightly defined by black, incompletely hoop-shaped, open below; a triangular pale olive-grey patch from middle of costa; terminal area olive-brown shading to deep purple-grey, its inner edge excurved to vein 4, then bent inwards to below end of cell and oblique to inner margin; postmedial line represented by an oblique grey spot from costa on the white area and an indistinctly double sinuous line near inner edge of dark area with tufts of raised blackish scales on it on inner area; subterminal line very indistinct, whitish defined on inner side by slight ferruginous red marks, excurved below vein 7 and at middle and bent outwards to tornus; a terminal series of black striæ slightly defined on inner side by white; cilia dark with a whitish patch below middle. Hind wing semihyaline white, the costal area and termen tinged with ochreous, the apex and cilia at apex brownish.

Hab. Gazaland, Up. Bozi R. (*Marshall*), 1 ♂ type. *Exp.* 34 millim.

6178. **Tarache chrysoproctis**. (Plate CLXXIII. fig. 22.)

Tarache chrysoproctis, Hmpsn. Ann. S. Afr. Mus. ii. p. 387 (1902).

♂. Head purplish fuscous; palpi white except at tips; thorax white slightly tinged with ochreous; fore tibiæ and the tarsi blackish ringed with white, the mid and hind tibiæ with fuscous bands; abdomen white with dorsal fuscous bands, the anal tuft orange. Fore wing white; subbasal line grey, waved, from costa to submedian fold; antemedial line grey, double, waved; a grey patch on middle of costa and sometimes a streak in lower extremity of cell, the antemedial and medial markings more or less suffused with olive-yellow; terminal area olive-green shading to brilliant metallic purple, its inner edge excurved to vein 4, then bent inwards to below middle of cell; postmedial line represented by an olive-grey spot on costa and striga in discal fold on the white area and a tuft of raised black scales in submedian fold on the dark area; two white points on costa towards apex; subterminal line represented by slight white marks defined on inner side by slight red-brown marks, excurved below vein 7 and waved at middle; a terminal series of black striæ defined on inner side by white at middle; cilia blackish and purple towards apex and at tornus, yellowish white at middle and with slight dark line through them. Hind wing white with fuscous terminal band.

obsolescent towards tornus; cilia white with slight fuscous marks at apex; the underside with postmedial bar from costa, a lunulate subterminal band from costa to vein 4 with dark marks beyond it on termen and a slight spot below vein 2.

Hab. Mashonaland, Salisbury (*Marshall, Dobbie*), 2 ♂ type. *Exp.* 32–34 millim.

6179. Tarache titania.

Noctua titania, Esp. Schmett. iv. p. 36, pl. 190. f. 2 (1796); Dup. Lép. Fr., Suppl. iii. p. 438, pl. 38. f. 6; Herr.-Schäff. Eur. Schmett., Noct. ff. 230–1; Friv. Tarsas. Tud. Akad. Evkönys. xi. (4) pl. 7. f. 10 (1886); Staud. Cat. Lep. pal. p. 225.

♂. Head and tegulæ fuscous brown with a greyish tinge, the latter white at base; palpi white except towards tips; thorax white slightly mixed with grey, the fore tibiæ and tarsi brownish ringed with white; abdomen white with diffused dorsal brownish bands and ventral bars. Fore wing white tinged with olive-yellow; subbasal and antemedial lines represented by double greyish bars from costa; orbicular represented by a black point, the reniform indistinct, greyish, oblique elliptical; a pale olive-yellow band from middle of costa to median nervure where it joins the dark terminal area, which is olive-brown shading to purplish grey, its inner edge obliquely excurved from costa to vein 4, then retracted to below end of cell and incurved to inner margin; traces of a fine dentate whitish postmedial line from vein 6 to inner margin, strongly incurved below vein 4 and with some bluish white irroration before it in submedian fold; subterminal line slight, yellowish defined on inner side by cupreous red, incurved and waved below vein 3; a terminal series of slight black lunules; cilia brown, white-tipped at apex and with white patch below middle. Hind wing white, some brown suffusion at base; a sinuous fuscous brown medial band; a broad terminal fuscous band, its inner edge incurved below vein 3; cilia white, brown at base from apex to vein 4 and at tornus; the underside white, an irregular black-brown medial band, the terminal band with a maculate white line on it from below apex to termen at vein 1.

♀. Thorax darker; fore wing with more dark suffusion at base; hind wing with the white areas reduced.

Hab. Hungary; Bosnia; Bulgaria; S. Russia (*Christoph*), Zeller, Frey, and Leech Colls.; Armenia; Asia Minor, Pontus; W. Siberia, Altai. *Exp.* 28–32 millim.

Larva. Yellowish white mottled with pink; dorsal line indistinct; lateral line whitish; somites 4–6 with deep pink lateral patches marked with some black, the warts on them white (*Christoph*).

6180. Tarache gradata. (Plate CLXXIII. fig. 23.)

Acontia gradata, Wlk. xii. 788 (1857).

Head black, the palpi white except at tips; thorax creamy white with slight black marks at sides of metathorax; tibiæ and tarsi banded black and white; abdomen white, dorsally tinged with yellow except at base, and with slight brownish segmental lines. Fore wing creamy white; subbasal line grey, double, waved, from costa to submedian fold; antemedial line grey, double, waved; orbicular represented by a few black scales; reniform incompletely defined by black, hoop-shaped, open below, a grey bar from costa before it; an oblique postmedial grey bar from costa; terminal area silvery purple with some olive on its inner edge, which is angled inwards at vein 6 to near the reniform and strongly incurved below vein 4; postmedial line very indistinct, double, minutely waved, incurved below vein 4 and with two black and silvery blue marks before it on inner area; a white point on costa before the subterminal line, which is represented by slight dark marks with a white point at costa and slight white marks beyond them on inner half, excurved below vein 7 and at middle and bent outwards to tornus; a terminal series of black striæ slightly defined by white towards tornus; cilia purple-grey with yellowish white patch above tornus. Hind wing orange-yellow with terminal brown band from apex to vein 2; cilia creamy white with some fuscous at base towards apex; the underside with the costal area whitish, a small blackish discoidal spot, patch on middle of costa, curved punctiform postmedial line from costa to vein 4, and patch on apical part of termen.

Hab. Cape Colony (*Drège*), 1 ♂ type, Grahamstown, 1 ♀. *Exp.* 34 millim.

6181. Tarache notabilis. (Plate CLXXIII. fig. 24.)

Calophasia notabilis, Wlk. xi. 669 (1857); Hmpsn. Moths Ind. ii. p. 311.

Head and thorax white, the latter faintly tinged with fuscous on dorsum; antennæ fuscous; fore legs and the tarsi fuscous ringed with white; abdomen white with slight dorsal brownish bands. Fore wing creamy white; a slight waved black subbasal line from costa to submedian fold, more or less reduced to points; antemedial line represented by an oblique wedge-shaped mark from costa and usually one or more points in submedian interspace; an oblique quadrate spot from middle of costa; terminal area olive-brown shading to purple-grey, its inner edge angled below vein 7 and incurved below the cell; postmedial line dentate, black, excurved to vein 4, then incurved; subterminal line white with elongate black marks beyond it from costa to vein 5 and a black lunule above tornus, dentate, and with the veins beyond it streaked

with white except towards apex and tornus; a fine white line just before termen; cilia white, tinged with purplish towards apex and with a series of purple-grey points near base. Hind wing semihyaline white, the veins tinged with brown, the termen suffused with brown from apex to vein 2; the underside white, sometimes with slight brown spots on costa beyond middle and at apex.

Hab. Punjab, Simla (*Harford*), 1 ♀, Rawal Pindi, 1 ♀, Campbellpur (*Yerbury*), 1 ♀, Wazeerabad (*Hearsey*), 2 ♂, 2 ♀ type; Bengal, Calcutta (*Hocking*), 1 ♂. *Exp.* 34–36 millim.

6182. Tarache hortensis.

Acontia hortensis, Swinh. P. Z. S. 1884, p. 517, pl. 47. f. 7; Hmpsn. Moths Ind. ii. p. 311.

♂. Head and thorax white mixed with fuscous grey; fore tibiæ and the tarsi brownish ringed with white; abdomen white tinged with ochreous. Fore wing white, the base slightly tinged with grey; a subbasal black spot in cell; antemedial line fuscous, double, waved, somewhat interrupted; orbicular absent; terminal area purple-grey largely suffused with red-brown, its inner edge oblique from costa to lower angle of cell, then incurved; reniform incompletely defined by black; a quadrate postmedial white patch on costa, the postmedial line arising from it, black slightly defined on outer side by white, angled inwards at discal fold, strongly incurved below vein 4 and slightly excurved at vein 1; subterminal line white defined on inner side by brown, excurved below vein 7 and at middle, then incurved and bent outwards to tornus, some white beyond it below apex and at middle; a terminal series of black striæ and a spot above tornus; cilia purplish brown with a white patch above tornus. Hind wing white, the costal area towards apex and the termen to vein 2 suffused with brown; the underside with two postmedial yellow-brown bars from costa and a mark at apex.

♀. Fore wing with the basal area more suffused with grey; hind wing wholly suffused with reddish brown, darker towards termen.

Hab. Sudan, Suakim (*Fletcher*), 1 ♂; Sokotra, Hadibu Plains (*O.-Grant*), 2 ♂; Sind, Karachi (*Swinhoe*), 1 ♀ type. *Exp.* 24–26 millim.

6183. Tarache niphogona.

Tarache niphogona Hmpsn. Trans. Zool. Soc. xix. p. 109, pl. iv. f. 17 (1909).

♀. Head dark brown, the palpi white except at tips; thorax creamy white with a few black scales at sides of metathoracic crest; fore tibiæ and the tarsi brown ringed with white; abdomen brownish ochreous with slight dark dorsal segmental lines, the

ventral surface white. Fore wing with the basal half white; subbasal line grey, double, waved, from costa to submedian fold; antemedial line grey, double, waved; orbicular a small black spot; terminal half olive-brown shading to deep purple-grey, its inner edge angled in cell, then oblique; reniform defined by blackish, hoop-shaped, open below; a triangular white patch from costa towards apex, the minutely waved blackish postmedial line arising from it, strongly incurved below vein 4; subterminal line indistinct, whitish defined on inner side by small somewhat dentate rufous marks, excurved below vein 7 and at middle and bent outwards to tornus; a terminal series of black points slightly defined on inner side by white, a larger spot in submedian fold; cilia brownish towards apex and tornus, white at middle. Hind wing ochreous whitish suffused with red-brown, especially towards termen; a small discoidal spot and diffused postmedial line; cilia white, brownish towards apex; the underside white tinged with brown, a slight discoidal lunule, brown patch at middle of costa, diffused curved postmedial line, and terminal band narrowing to submedian fold.

♂. Fore wing with the white basal area confluent on costal half with the white postmedial patch, the inner edge of the dark terminal area very strongly and evenly incurved below vein 5, two small olive spots on costa beyond middle; hind wing white with narrow terminal dark band from apex to vein 2.

Hab. Uganda, Ruwenzori, 3,500′ (*Legge & Wollaston*), 2 ♀ type; Congo, Katanga, Kambove (*Neave*), 1 ♂; N.W. Rhodesia, Alala plateau (*Neave*), 1 ♂; Mashonaland (*Dobbie*), 1 ♂. *Exp.* 30 millim.

6184. Tarache caffraria.

Noctua caffraria, Cram. Pap. Exot. ii. p. 82, pl. 147. fig. F (1779).
Noctua caloris, Hübn. Eur. Schmett., Noct. f. 372 (1808).
Acontia komaga, Feld. Reis. Nov. pl. 108. f. 33 (1874).

♂. Head black, the palpi white except at tips; thorax creamy white with a few black scales at sides of metathoracic crest; fore tibiæ and the tarsi black ringed with white, the mid and hind tibiæ with black spots; abdomen creamy white with slight fuscous dorsal segmental lines. Fore wing with the basal half creamy white; subbasal line diffused, grey, double, waved, from costa to submedian fold, confluent with the diffused double waved antemedial line; orbicular a small black spot; terminal half deep olive-green shading to deep purple, its inner edge oblique from costa to median nervure where it is angled; reniform elliptical, more or less strongly defined by white, confluent with a quadrate white patch on postmedial costal area; postmedial line represented by an oblique dark bar on the white costal patch and a series of black spots on the dark area, strongly incurved below vein 4; subterminal line represented by a series of very slight rufous lunules with some

white irroration beyond them; a terminal series of black striæ defined on inner side by white at middle: cilia brown towards apex and tornus, white at middle. Hind wing white with narrow terminal fuscous band from apex to vein 2 or narrowing to tornus; cilia fuscous at apex; the underside with blackish medial and post-medial bars from costa and patch at apex.

♀. Hind wing suffused with fuscous brown leaving some white in lower part of cell and on inner area, a dark discoidal bar and sinuous postmedial line slightly defined by white on outer side: the

Fig. 210.—*Tarache caffraria*, ♂. ½.

underside white with discoidal point, medial bar from costa, incomplete postmedial line, and terminal band with dentate inner edge.

Ab. 1. ♀. Fore wing with the dark area extending to antemedial line; hind wing nearly uniformly suffused with fuscous brown.—Br. E. Africa.

Hab. Br. E. Africa, Kikuyu (*Crawshay*), 1 ♀; Transvaal, Piet Retief (*Crawshay*), 2 ♂, Kranspan (*Janse*), 1 ♂; Zululand, Lr. Tugela (*Reynolds*), 1 ♂, 1 ♀; Natal, Estcourt (*Hutchinson*), 2 ♂, Newcastle, 1 ♂, Durban (*Bowker*, *Leigh*), 2 ♀: Cape Colony (*Sir A. Smith*), 1 ♀, Knysna (*Trimen*), 1 ♂, 1 ♀, Simonstown (*de la Garde*), 1 ♂, 1 ♀, Cape Town (*Trimen*), 1 ♂, 1 ♀. *Exp.* 32–40 millim.

6185. Tarache lucida.

Noctua lucida, Hüfn. Berl. Mag. iii. p. 302 (1766); Hmpsn. Moths Ind. ii. p. 310; Staud. Cat. Lep. pal. p. 225.
Noctua solaris, Schiff. Wien. Verz. p. 90 (1776); Esp. Schmett. iv. pl. 88. ff. 2, 3 (1788); Hübn. Eur. Schmett., Noct. ff. 307, 308; Dup. Lép. Fr. vii. pt. 1, p. 346, pl. 121. ff. 1, 2; Frr. Neue Beitr. pl. 345.
Noctua albicollis, Fabr. Spec. Ins. ii. p. 218 (1781).
Noctua rupicola, Borkh. Schmett. Eur. iv. p. 82 (1792).
Noctua insolatrix, Hübn. Eur. Schmett., Noct. ff. 684–5 (1822).
Acontia titania, Frr. Neue Beitr. vi. p. 84, pl. 533 (1852), nec Esp.
Acontia triradiata, Wlk. xii. 794 (1857).
Acontia triangulum, Costa, Atti Accad. Napoli, ix. (11) p. 39 (1882).
Acontia lugens, Alph. Rom. Mém. v. p. 182 (1889).

Head and thorax grey-brown mixed with some white; palpi white except at tips; pectus and legs white, the tibiæ with brown

bands, the tarsi brown ringed with white; abdomen grey-brown with white segmental lines, the ventral surface white. Fore wing with the basal half white, the base slightly tinged with grey; a subbasal grey striga from costa with a black spot beyond it in cell; antemedial line represented by an oblique fuscous bar from costa and a slight mark above inner margin; orbicular represented by a white point defined on inner side by yellow on the inner edge of the dark terminal half, which is olive-brown shading to purple grey at termen, its inner edge oblique from costa to median nervure, then incurved; reniform slightly defined by white, strongly constricted at middle and angled inwards on median nervure: a quadrate postmedial white patch from costa, the somewhat lunulate blackish postmedial line arising from it, strongly incurved below vein 4, with a black and greyish mark on it in submedian interspace and traces of a waved white line beyond it from vein 3 to inner margin; a white point on costa before the subterminal white line, which is excurved below vein 7, somewhat dentate at veins 4, 3 and bent outwards to tornus, the veins beyond it streaked with white on inner half: a terminal series of small black spots defined by white on inner side and with larger spot below apex; cilia white, red-brown with some white spots on apical half and at tornus. Hind wing white, the basal area with diffused brown streaks on costal and inner areas and median nervure; a broad terminal brown band with sinuous inner edge; cilia white, brown at base towards apex; the underside with the streaks of basal half reduced, a black postmedial bar from costa.

Ab. 1. *lugens*. Much darker; fore wing with the basal area mostly suffused with olive-brown.

Ab. 2. *albicollis*. Head, thorax, and basal half of fore wing wholly white.

Ab. 3. *insolatrix*. Fore wing with the medial area fulvous yellow to postmedial line instead of olive-brown.

Hab. Britain (1 sp.); France, Frey, Sand, & Leech Colls., Toulouse (*Eaton*); Germany, Zeller Coll.; Austria; Hungary; Spain, Leech Coll., Casayo (*Chapman*), Gibraltar (*Irby*); Italy, Rome, Zeller Coll.; Sicily, Zeller Coll.; Dalmatia, Frey Coll.; Greece, Merlin Coll., Morea (*Elwes*); Algeria (*Mrs. Nicholl*), Philippeville (*Walsingham*), Biskra (*Walsingham*); Morocco, Tangier, Leech Coll., Mogador, Leech Coll.; Canaries, Leech Coll.; Madeira, Porto Santo (*Wollaston, O.-Grant*); Crete (*Miss Bate*); Rhodes, Zeller Coll.; Cyprus (*Miss Bate*); Bulgaria (*Mrs. Nicholl*); Russia, Livonia, Sarepta (*Christoph*); Armenia; Asia Minor, Zeller Coll.; Syria, Leech Coll., Lebanon, Leech Coll.; Persia, Fao (*Cumming*), 3 ♂, 2 ♀; W. Turkestan; W. Siberia, Altai; Kashmir (*Nurse*), 1 ♂, Goorais Valley (*Leech*), 1 ♀; Punjab, Kulu (*Hocking*), 3 ♂, Cambellpur (*Verbury*), 2 ♂, 3 ♀, Murree (*Harford*), 1 ♂, Chittar Pahar (*Verbury*), 1 ♀, Wuzeerabad (*Hearsey*), 1 ♀ type *triradiata*. *Exp.* 26–30 millim.

Larva. Meyr. Brit. Lep. p. 165; Barrett, Lep. Brit. vi. p. 176; Hffm. Raup. p. 140, pl. 36. f. 7.

Grey-brown tinged with red and dorsally mixed with blackish and whitish, spiracular line white; 1st pair of prolegs absent. Food-plants: *Convolvulus* and *Malva*. 6.7.9.

*6186. Tarache malgassica. (Plate CLXXIII. fig. 25.)

Acontia malgassica, Mab. C. R. Ent. Soc. Belg. xxv. p. 60 (1881); Saalm. Lep. Madag. p. 330.

♀. Head and tegulæ white; thorax and abdomen white tinged with brown; pectus, legs, and ventral surface of abdomen white, the tarsi tinged with brown and irrorated with white. Fore wing white faintly tinged with ochreous on inner half, a brownish fascia on basal half of inner margin; subbasal line represented by a curved black striga from costa and black striga from cell; brownish marks on and below costa and above and below submedian fold before the antemedial line, which is slight, black, interrupted, waved, oblique from costa to submedian fold, then erect, a quadrate brown mark beyond it on costa; orbicular represented by an elongate brown and grey patch, the reniform by a few brown scales on its edges, with a triangular brown mark above it from costa; a small triangular postmedial brown mark on costa; a slight blackish line from vein 6 beyond the cell, erect to vein 4, then bent inwards to lower angle of cell and erect to inner margin, the area beyond it dark brown to the subterminal line traversed by the black postmedial line, which arises from the triangular costal mark, is slightly bent outwards below costa, then dentate and below vein 4 strongly incurved; subterminal line whitish, incurved below costa and vein 3, where there are round black spots with whitish annuli beyond it, minutely dentate at middle; terminal area white tinged with grey; a terminal series of brown striæ; cilia white tinged with brown. Hind wing white, the terminal area suffused with brown, broadly at costa, narrowing to tornus; cilia white with a brown line near base; the underside white with the terminal half of costal area and terminal area slightly irrorated with brown.

Hab. Madagascar, type † ♀ in Coll. Mabille. *Exp.* 46 millim.

6187. Tarache discoidea. (Plate CLXXIII. figs. 26 ♂, 27 ♀.)

Acontia discoidea, Hopffr. Peter's Reis. Moz. p. 433, pl. 28. f. 9 (1862).
Calophasia upsilon, Wlk. xxxiii. 763 (1865); Hmpsn. Moths Ind. ii. p. 311.

Head grey-brown, the palpi white except at tips; thorax white slightly tinged with ochreous; fore tibiæ and the tarsi brown ringed with white; abdomen reddish ochreous, the ventral surface white. Fore wing white with a faint ochreous tinge; subbasal line greenish grey, double, waved, from costa to submedian fold where there are

some blackish scales on its outer edge; antemedial line double, greenish grey filled in with white, waved, excurved below the cell; orbicular and reniform slightly defined by black, the former minute, round, on a greyish patch connected with a patch on costa, the latter hoop-shaped, open below; terminal area deep red-brown; postmedial line represented by a greenish grey bar from costa on the white area and a sinuous blackish line from vein 6 to inner margin, incurved below vein 4, with some greenish grey before it beyond the cell and on inner area; two white points on costa towards apex; traces of a sinuous dark subterminal line, below vein 3 incurved and with slight white points on its outer edge; a fine black terminal line; cilia blackish with some white at base and tips above tornus. Hind wing ochreous whitish, the veins and termen tinged with reddish brown, in female more uniformly suffused with brown; cilia whitish, tinged with brown towards apex; the underside yellowish white with dark discoidal point and some diffused brown at middle of costa and apex.

Hab. Congo (*Marsden*), 1 ♂; Angola, Ambriz (*Monteiro*), 1 ♂; Br. E. Africa, Sabaki R. (*Gregory*), 1 ♀, Taveta (*Rogers*), 4 ♀, Kilimanjaro (*Jackson*), 1 ♀, Samburu (*Betton*), 1 ♀; Portuguese E. Africa; Bechuanaland, N'gami (*Lugard*), 1 ♂; Natal, Durban (*Leigh*), 1 ♀; Bombay, Poona, 1 ♀ type *upsilon*; Madras, Shevaroys, 1 ♂. *Exp.* 26–30 millim.

*6188. Tarache costosa. (Plate CLXXIII. fig. 28.)

Tarache costosa, Mab. Ann. Soc. Ent. Fr. 1899, p. 728.

♀. Head, thorax, and abdomen white tinged with brown in parts; tarsi brown ringed with white. Fore wing greyish brown, the basal area white with a brown streak above inner margin; subbasal line grey, waved, from costa to submedian fold; antemedial line grey, oblique, waved; a white patch on medial part of costa extending to median nervure, its outer edge obliquely excised, a brown point on it below middle of costa and a black point on its inner edge representing the orbicular; an indistinct blackish medial line from cell to inner margin; postmedial line dark, oblique from costa to vein 6, excurved to vein 4, then obliquely incurved, a small triangular white mark beyond it on costa; subterminal line white, dentate, defined on inner side by dentate brown marks, angled outwards at veins 7, 6; a terminal series of black points defined on inner side by white strigæ; cilia white tinged with brown towards apex and tornus and with blackish patch at discal fold. Hind wing white slightly tinged with ochreous, the terminal area suffused with red-brown; cilia white; the underside white tinged with ochreous, a small brown discoidal spot.

Hab. Madagascar, type † ♀ in coll. Mabille. *Exp.* 24 millim.

6189. Tarache margaritata.

Noctua margaritata, Drury, Ill. Exot. Ins. iii. pl. 21. f. 6 (1782).
Acontia bohemanni, Wllgrn. Anteckn. i. Zool. i. p. 58 (1856); id. Svensk. Vet.-Akad. Handl. (5) 3, p. 66 (1864).
Acontia monilifera, Wlk. xii. 798 (1857).
Acontia includens, Wlk. xii. 799 (1857).
Acontia unio, Feld. Reis. Nov. pl. 108. f. 32 (1874).

♂. Head and thorax white; palpi at tips, frons, antennæ, and metathoracic crest brownish; fore tibiæ and the tarsi brown ringed with white; abdomen white with slight brownish dorsal segmental lines. Fore wing with the basal half white; subbasal line grey, double, waved, from costa to submedian fold, followed by a black point in cell; antemedial line grey, double, waved; orbicular a small round grey spot with faintly defined white annulus: a medial olive-green band, oblique from costa to lower angle of cell where it is interrupted, then incurved and with black lunule beyond it in submedian fold; reniform defined by black, hoop-shaped, open below; a large truncate conical white postmedial patch from costa to discal fold, its inner edge excised below, its outer edge angled below vein 7, some olive-green below it, the indistinct double minutely waved postmedial line arising from its outer edge and incurved below vein 4; the terminal area purplish grey tinged with blood-red; subterminal line very slight, whitish, defined on inner side by blood-red, incurved below costa where there is a blackish patch beyond it, then minutely waved; a terminal series of black striæ slightly defined by white on inner side; cilia pinkish and white with a series of obscure dark spots and whitish patch below middle. Hind wing white, the termen tinged with red-brown and with slight dark points on it from apex to vein 3; the underside with slight black discoidal spot.

♀. Fore wing with the basal area slightly suffused with grey; hind wing with the whole terminal area suffused with brown.

Hab. Natal, Durban (*Gooch*), 2 ♂, 3 ♀, types *monilifera* and *includens*. *Exp.* 36–40 millim. Type† *bohemanni* in Mus. Stockholm.

6190. Tarache tetragonisa, n. sp. (Plate CLXXIII. fig. 29.)

♀. Head grey-brown, the vertex and tegulæ pure white; thorax white tinged with brown; pectus and legs white, the fore tibiæ and tarsi grey-brown ringed with white; abdomen brownish with darker segmental lines, the ventral surface white. Fore wing purplish grey, the terminal half suffused with red-brown except towards inner margin, some white suffusion at base; subbasal line indistinct, double, waved, from costa to submedian fold, a black point beyond it in cell; antemedial line indistinct, double, waved; orbicular faintly indicated by some dark scales, the reniform by slight oblique black bars at sides; traces of a waved line from

lower angle of cell to inner margin; a large pure white truncate conical patch from postmedial part of costa to discal fold, its inner edge excised by the reniform, its outer angled below vein 7, the indistinct double minutely waved postmedial line arising from its outer edge, strongly incurved below vein 4 and with a tuft of blue-black scales before it in submedian fold; subterminal line cupreous red, incurved below costa, then minutely waved and with black spots beyond it at apex, middle, and above tornus; a terminal series of minute black lunules; cilia grey intersected with black at base, rufous at tips. Hind wing pale brownish ochreous, darker towards termen; cilia white, tinged with brown at apex and at base to vein 2; the underside white tinged with brown, the termen suffused with brown from apex to vein 2, a black discoidal spot, traces of a diffused curved postmedial line, and terminal series of black striæ.

Hab. Transvaal, Johannesburg (*Cooke*), 1 ♀ type; Natal, Stanger (*Delvin*), 1 ♀, Bond's Drift (*Reynolds*), 1 ♀. *Exp.* 36 millim.

6191. Tarache leucotrigona. (Plate CLXXIII. figs. 30 ♂, 31 ♀.)

Tarache leucotrigona, Hmpsn. Ann. S. Afr. Mus. iii. p. 436 (1905).

♂. Head whitish suffused with grey-brown or pinkish, the palpi white below; thorax white suffused with grey-brown except the tegulæ; pectus and legs white, the fore tibiæ and the tarsi brown ringed with white; abdomen brownish white with brown dorsal segmental bands. Fore wing white, the basal area suffused with olive-grey or pinkish; subbasal line white, waved, from costa to submedian fold; antemedial line white, waved; orbicular represented by a few black scales, the reniform slightly defined by black, hoop-shaped, open below; terminal area olive green shading to deep purple, its inner edge running obliquely from costa beyond antemedial line to beyond lower angle of cell, then retracted to below middle of cell and erect to inner margin; a triangular white patch on costa towards apex, the indistinct minutely waved postmedial line arising from its apex, with some tufts of black scales on it, strongly incurved below vein 4; subterminal line represented by a series of small dentate red marks with slight white marks on their outer side on inner half; a terminal series of black striæ slightly defined by white on inner side; cilia purplish grey with whitish patch at middle. Hind wing white, the costal area, veins of terminal area, and termen from apex to vein 2 suffused with brown; cilia white, brown at apex; the underside with medial and postmedial brown bars from costa.

♀. Hind wing wholly suffused with reddish brown, the cilia white except at apex; the underside white tinged with brown, a black discoidal spot, diffused curved postmedial line, and traces of subterminal band.

Ab. 1. Fore wing with the upper part of reniform produced and emitting two black streaks intersecting the triangular part.

Hab. Br. E. Africa, Kikuyu (*Crawshay*), 1 ♂, 1 ♀, Machakos (*Crawshay*), 1 ♂; Gazaland, Melsetter (*Marshall*), 1 ♀ type; Zululand, Lr. Tugela (*Reynolds*), 1 ♀; Natal, Maritzburg (*Burnup*), 1 ♀. *Exp.* 32–36 millim.

*6192. Tarache dimidata. (Plate CLXXIII. fig. 32.)

Acontia dimidata, Smith, J. N.Y. Ent. Soc. xiii. p. 208 (1905).

♀. Head and tegulæ fuscous mixed with some white; palpi fuscous, the extremities of 2nd and 3rd joints white; thorax ochreous white, the fore and mid tibiæ and the tarsi blackish ringed with white; abdomen ochreous white dorsally suffused with brown. Fore wing with the basal half ochreous white; some brown at base of costa; a subbasal black point on costa followed by a whitish spot, then a triangular brown patch and a slight subbasal black lunule in cell; an antemedial black point on costa; terminal half blackish brown tinged with grey and defined on inner side by the sinuous black medial line; reniform leaden grey with very slight white annulus faintly defined by black, elliptical; postmedial line slight, black defined on outer side by silvery grey, obliquely curved from costa to vein 6, very slightly angled inwards at discal fold, incurved and sinuous below vein 4; some white points beyond it on costa; subterminal line slight, black, defined on inner side by yellowish white except towards costa and forming a patch at discal fold, and on outer side by silvery grey, slightly angled outwards at veins 7, 6 and excurved at middle; a fine black terminal line defined on inner side by a white line except towards tornus; cilia with whitish patches at apex and above tornus. Hind wing ochreous white tinged with brown; a fine black terminal line except towards tornus; cilia whitish at tips; the underside white, the costal half irrorated with brown, the inner half tinged with ochreous, a dark discoidal point.

Hab. U.S.A., Arizona, Yavapai Co., ♀ in Coll. J. B. Smith, Redington. *Exp.* 16 millim.

Genus EUGRAPHIA.

	Type.
Eugraphia, Guen. Noct. ii. p. 208 (1852)	*irretita*.

Proboscis fully developed; palpi porrect to just beyond frons which is smooth; eyes large, round; antennæ of male somewhat laminate and almost simple; thorax clothed with hair overlying scales and without crests; tibiæ smoothly scaled; abdomen without crests. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 nearly fully developed from well below middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

A. Fore wing with the ground-colour creamy white.
  a. Fore wing with the terminal area creamy white ..... *splendens*.
  b. Fore wing with the terminal area orange-red with broad greyish fuscous subterminal and terminal bands ..... *irretita*.
  c. Fore wing with the terminal area black ..... *effusa*.
B. Fore wing bronze-green.
  a. Fore wing with orange streaks below costa, on median nervure and vein 1 ..... *lethaea*.
  b. Fore wing without orange streaks ..... *obscura*.

6193. Eugraphia splendens. (Plate CLXXIV. fig. 1.)

Eugraphia splendens, Druce, A. M. N. H. (6) xviii. p. 42 (1896).

Head and thorax pale yellow; antennæ black; fore tibiæ and the tarsi banded black and white, the mid and hind tibiæ with black bands at extremities; abdomen orange, pale yellow below. Fore wing pale yellow; an obliquely curved olive-brown line from costa before middle to lower angle of cell where it joins the olive-brown medial line, slightly excurved below costa; a postmedial olive-brown patch on costal area, its lower extremity connected by a streak with a small spot beyond the cell; an oblique blood-red bar from lower angle of cell to near tornus with two ocelli on its inner edge, with olive-brown inner parts, silvery blue centres and black outer parts; an oblique olive-brown fascia suffused with grey from just below apex to beyond lower angle of cell; cilia pale olive-brown. Hind wing orange, whitish at base; a small black spot on termen just below apex; cilia white; the underside with white mark at apex with small blackish spot before it on costa.

Ab. 1. Hind wing of male whiter except terminal area and without the black spots, of female with oblique blackish streak from apex or large patch on apical area emitting a spur from lower extremity. —Paraguay.

Hab. Ecuador, Guayaquil (*Dolby-Tyler*), 4 ♂; Paraguay, Sapucay (*Foster*), 1 ♂, 2 ♀. *Exp.* 28–34 millim.

6194. Eugraphia irretita.

Euxceptis irretita, Hübn. Zutr. Ex. Schmett. ii. p. 21, ff. 305, 306 (1823).
Noctua melanogramma, Perty, Del. Anim. Artic. Bras. pl. 32. f. 10 (1833).

Head and thorax pale yellow; antennæ black; fore femora black on inner side, the fore tibiæ and the tarsi black ringed with white, the mid and hind tibiæ with black bands at extremities; abdomen orange, the ventral surface white with some sublateral black spots. Fore wing yellowish white; an antemedial black line oblique to submedian fold where it is angled, then inwardly oblique; an oblique black line from costa to the postmedial line at lower angle of cell; postmedial line black, expanding at costa, obliquely curved from costa to submedian fold where it joins the antemedial line, then outwardly oblique, some silver scales on

its outer edge from lower angle of cell to inner margin; the terminal area orange-red, except a wedge-shaped yellow patch on costal area beyond the postmedial line; a broad oblique greyish fuscous band from apex to vein 2 and a greyish fuscous mark with small black spots above and below it beyond the postmedial line on inner area; a terminal fuscous-brown band narrowing to a point below apex; cilia fuscous brown. Hind wing of male

Fig. 211.—*Eugraphia irretita*, ♂, ½.

semihyaline white, the costa and termen yellow, a small apical black spot, of female orange, with broad brown band from apex to vein 1 incurved below vein 4; the underside of male with two black points near apex, of female with the band narrower, arising from before apex and ending at submedian fold, a small spot at apex.

Hab. Brazil, 1 ♂, 1 ♀. *Exp.* 26 millim.

6195. Eugraphia effusa.

Eugraphia effusa, Druce, Biol. Centr.-Am., Het. i. p. 304, pl. 28. f. 12 (1889), & ii. p. 492.

♀. Head and thorax yellowish white; palpi brown behind; antennæ black; spurs and tarsi brown; abdomen orange-yellow, the ventral surface white with fuscous bands. Fore wing yellowish white; an oblique black bar from costa before middle to a black fascia on terminal half of median nervure, met at end of cell by an oblique line from middle of costa and erect bar from costa above end of cell, emitting from lower angle of cell an oblique line to inner margin and expanding beyond the cell to the black terminal area; a few silvery blue scales in cell on the antemedial black bar, a few at lower angle, and a fine silvery blue line from lower angle of cell to inner margin near the inner edge of the black terminal area. Hind wing orange-yellow, the terminal area black, broad at costa where there is a yellowish white spot at apex, narrowing to a point at tornus, its inner edge sinuous and angled outwards at vein 2; the underside with the apical spot conical and extending to below vein 7.

Hab. Costa Rica, Sta Clara Valley (*Zurcher*), 1 ♀, Godman-Salvin Coll.; Panama, Chiriqui. *Exp.* 34 millim.

*6196. **Eugraphia trilinea.** (Plate CLXXIV. fig. 2.)

Acontia trilinea, Schaus, J. N.Y. Ent. Soc. vi. p. 117 (1898).

♂. Head and thorax orange, palpi with black spot on 2nd joint above; frons with black spot; antennæ black; thorax with brown streaks above patagia with a silvery blue gloss; fore femora above, tibiæ at extremities, and the tarsi black-brown with a silvery blue gloss; abdomen black-brown, the ventral surface orange. Fore wing grey-brown, thickly irrorated with greenish white; an orange fascia below costa from base to before apex, emitting a streak on median nervure which forks at lower angle of cell; a fascia on vein 1 from base to before tornus; cilia black-brown. Hind wing black-brown, the cilia greyish at tips. Underside of fore wing with the costa towards apex orange; hind wing with the costal area slightly irrorated with greenish white.

Hab. Mexico, Jalapa (*Schaus*), type † ♂ in U.S. Nat. Mus. *Exp.* 38 millim. This may be the male of *E. obscura*.

6197. **Eugraphia obscura.** (Plate CLXXIV. fig. 3.)

Acontia obscura, Schaus, J. N.Y. Ent. Soc. vi. p. 117 (1898).

♀. Head and tegulæ orange; antennæ black; thorax dark bronze-green, the patagia at base and tips and the prothorax with some ochreous; legs black, the coxæ orange; abdomen black-brown. Fore wing dark bronze-green thickly irrorated with spatulate dark-edged white scales. Hind wing black-brown, the cilia greyish.

Hab. Mexico, Jalapa (*Schaus*), 1 ♀. *Exp.* 36 millim.

ADDENDA AND CORRIGENDA.

5009. **Aræoptera obliquifascia**, de Joan. Bull. Soc. Ent. Fr. 1910, p. 201.

5024 *a*. **Proroblemma polystriga**, n. sp. (Plate CLXXIV. fig. 4.)

♀. Head, thorax, and abdomen grey mottled with brown, the head and thorax tinged with purplish pink; tarsi ringed with white. Fore wing whitish suffused with purplish pink and thickly striated with brown, irrorated with a few silvery scales; a slight pale discoidal spot; postmedial line dark defined on outer side by whitish, excurved below costa and very obliquely curved below vein 4; an indistinct double dark subterminal line, ending on termen above tornus; a terminal series of black points. Hind wing whitish suffused with pale brown; a terminal series of black points; the underside white slightly irrorated with brown, a dark discoidal point and indistinct curved postmedial line.

Hab. W. Colombia, 1 ♀ type. *Exp.* 22 millim.

Genus **TROGOBLEMMA**, nov.

Type, *T. acutalis*.

Proboscis absent; palpi porrect, extending about twice the length of head, triangularly fringed with scales above, moderately below, the 3rd joint short; frons smooth with tuft of hair above; eyes large, round; antennæ of male with long cilia; thorax clothed almost entirely with scales and without crests; tibiæ slightly fringed with hair; abdomen without crests. Fore wing with the costa highly arched towards apex which is produced and acute, the termen strongly excised below apex and angled at vein 4, then oblique; veins 3 and 4 from near angle of cell; 6 from below upper angle; 7 from angle; 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 shortly stalked; 5 nearly fully developed from well above angle; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

*5024 *b*. **Trogoblemma acutalis**.

Sorygaza acutalis, Schaus, Pr. U.S. Nat. Mus. xxx. p. 121 (1906).

♂. Head whitish, the palpi pale rufous; thorax dorsally whitish,

Fig. 212.—*Trogoblemma acutalis*, ♂. ½.

the sides of tegulæ and the patagia pale rufous with a few black scales; pectus and abdomen whitish; legs tinged with brown, the tarsi ringed with whitish. Fore wing pale rufous irrorated with a few black scales; a black point in middle of cell and elliptical

discoidal spot; faint traces of a medial line, of a postmedial line oblique from costa to vein 7 and incurved below vein 4, and of a curved subterminal line; a series of black points just before termen, almost obsolete toward tornus; cilia deep rufous. Hind wing white with slight brownish discoidal spot; the underside with a few black scales on costal area, a black discoidal spot and terminal series of points from apex to vein 2.

Hab. Brazil, São Paulo (*D. Jones*), type † ♂ in U.S. Nat. Mus. *Exp.* 24 millim.

5086 *a*. **Eublemma flavipars**, n. sp. (Plate CLXXIV. fig. 5.)

♀. Head and thorax yellow suffused with rufous; abdomen browner; pectus whitish. Fore wing yellow suffused with rufous especially on terminal area, and slightly irrorated with blackish; an indistinct waved brown antemedial line, double at costa; an oblique black striga from middle of costa; postmedial line double, fuscous filled in with grey, rather diffused, oblique from costa to vein 6, where it is met by an oblique diffused black streak from costa near apex, then inwardly oblique, some pale points beyond it on costa, a sinuous line from vein 2 to inner margin; a punctiform black subterminal line excurved at middle. Hind wing with the basal area ochreous tinged with brown; a double oblique dark medial line filled in with grey and diffused on outer side towards inner margin; the terminal area yellow suffused with rufous; a subterminal series of slight black points; the underside much paler and irrorated with a few blackish scales, the double medial line indistinct and excurved below costa.

Hab. Dutch N. Guinea, Fak-fak (*Pratt*), 1 ♀ type. *Exp.* 26 millim.

5091. Eublemma *seeda* insert *Phalæna* dimidialis, Fabr. Ent. Syst. iii. 2, p. 224 (1794), which has priority.

5103 *a*. **Eublemma goniogramma**, n. sp. (Plate CLXXIV. fig. 6.)

♂. Head and tegulæ white, the palpi, vertex of head, and tips of tegulæ yellowish; antennæ ochreous; thorax ochreous white; legs suffused with brown; abdomen ochreous white. Fore wing white suffused with reddish ochreous and slightly irrorated with fuscous in the cell and beyond the postmedial line; the costal area whiter to the postmedial line; black points in the cell before and at middle and on discocellulars; postmedial line black defined on outer side by white, very oblique from costa to vein 6 towards termen where it is met by an oblique black and white streak from apex, then inwardly oblique to middle of vein 1 where it terminates, some blackish irroration before it and the apical streak and a black point above its angle below vein 7; a small black subterminal mark in submedian fold; a terminal series of slight white points except towards apex; cilia grey-white mixed with black. Hind

with white tinged with red-brown; a fine brown terminal line: cilia whiter; the underside white irrorated with red-brown.

Hab. Transvaal, Gembokfontein (*Janse*), 1 ♂ type. *Exp.* 22 millim.

5164 *a*. **Eublemma albivena.** (Plate CLXXIV. fig. 8.)

Erizada albivena, Hmpsn. Ann. S. Afr. Mus. iii. p. 429 (1905).

♂. Head and thorax grey-white pencilled with chocolate-brown; palpi brown; fore tibiæ and the tarsi brown, the latter ringed with white; abdomen ochreous white. Fore wing pale grey irrorated with chocolate-brown and a few large black scales, the veins prominently streaked with white; antemedial line brownish, oblique, sinuous, incurved in cell; a small black spot in cell towards extremity and elliptical discoidal spot, both slightly defined by white; medial line brownish defined on outer side by whitish, excurved round end of cell, then oblique and slightly sinuous; postmedial line blackish defined on outer side by white, very slightly waved, excurved from costa to vein 4, then oblique; a faint waved white subterminal line; cilia chocolate-brown at base. Hind wing white irrorated with brown; an indistinct waved postmedial line and fine terminal line with black points at the interspaces; the underside with the costal area to vein 2 irrorated with a few black scales.

♀. Hind wing suffused with grey-brown.

Ab. 1. Fore wing with the lines strong and black, the terminal area suffused with black.

Hab. Uganda (*Christy*), 1 ♀, Port Ugowe (*H. H. Johnston*), 1 ♂; Zululand, Lr. Tugela R. (*Reynolds*), 1 ♂ type. *Exp.* 28–34 millim.

5164 *b*. **Eublemma titanica.** n. sp. (Plate CLXXIV. fig. 9.)

♀. Head rufous, the lower part of frons whitish, the antennæ brown; tegulæ brown; thorax grey-white irrorated with a few large black scales; abdomen grey slightly irrorated with black. Fore wing purplish grey tinged with brown and irrorated with black, the veins streaked with whitish; a blackish antemedial line angled inwards on subcostal nervure and outwards below the cell; a black discoidal lunule; medial line blackish, waved, excurved to vein 4, then oblique; postmedial line blackish defined on outer side by whitish, minutely waved, excurved to vein 4, then slightly incurved; an indistinct waved whitish subterminal line; a fine brown terminal line. Hind wing grey-brown with some black irroration above vein 1; an indistinct curved postmedial line; a fine brown terminal line; the underside brownish grey irrorated with a few black scales.

Hab. Transvaal, Piet Retief (*Mrs. Mercer*), 1 ♀ type. *Exp.* 38 millim.

Page 86, line 13, for *melanodonta* read *stygiodonta*.

5213. **Eublemma minima.**

Larva. Dyar, Proc. Ent. Soc. Wash. iv. p. 326.

Head black; body without prolegs on somites 7 and 8; brown without markings or shields; legs and plates black; skin shagreened. Food-plant: *Gnaphalium* (H. G. D.).

5281. **Eublemma pyrastis** should be transferred to Sect. viii. D, after 5103 *a*. *E. goniogramma*.

5294 rename **Eublemma chionophlebia**, *E. albicana* being pre-occupied.

5315 *a*. **Ligidia endolopha**, n. sp. (Plate CLXXIV. fig. 7.)

Fore wing with the termen excised below apex and excurved at middle, the inner margin with large scale-tooth at middle.

Head and thorax bright rufous; tarsi banded with fuscous; abdomen ochreous white tinged in parts with rufous. Fore wing bright rufous tinged with purplish pink; a small black spot at middle of costa with traces of a curved line from it to inner margin; the terminal part of costa with series of black points; an indistinct subterminal line formed of blackish striæ, excurved at middle; a terminal series of striæ; cilia with blackish points at tips towards apex. Hind wing ochreous white, the terminal area suffused with purplish pink, the apical area with fuscous brown; a terminal series of slight dark striæ; cilia yellow with brown line at middle, the tips chequered with brown. Underside of fore wing with the disk suffused with purplish pink, a strong black line arising from the costal spot, angled outwards below costa, then oblique and ending at submedian fold, some black on termen below vein 7; hind wing with the costal and terminal areas irrorated with purplish pink, a black postmedial line excurved and crenulate from below costa to vein 4.

Ab. 1. Head, thorax, and fore wing much more ochreous, the last with the black spot at middle of costa larger and more prominent.

Hab. Br. N. Guinea, Milne Bay (*Meek*), 1 ♂, 2 ♀ type *Exp*. 20–22 millim.

5476. **Corgatha terracotta**, de Joan. Bull. Soc. Ent. Fr. 1910, p. 262.

5559 *a*. **Stenoloba confusa.**

Moma confusa, Leech, P. Z. S. 1889, p. 480, pl. i. f. 5.

Abdomen with crests on 1st and 4th segments.

♀. Head and thorax white, the 2nd and 3rd joints of palpi and

vertex of head with black spots; antennæ brown; tegulæ with black line at base, the tegulæ at tips, patagia and metathorax with some black mixed; fore tibiæ and the tarsi brown ringed with white; abdomen white tinged with brown, the crests tipped with black. Fore wing brown suffused with purple-grey and with white markings defined by black; a white fascia below base of cell connected with costa by two converging subbasal bands enclosing a triangular space; a white antemedial band obliquely curved from costa to vein 1, then bent outwards to inner margin, some white suffusion tinged with blue-green beyond it; a white fascia on terminal part of median nervure continued to beyond the postmedial band where it sometimes encloses a dark spot; an angled white mark in end of cell connected with the oblique discoidal lunule; an oblique white band from below middle of cell to inner margin, its upper extremity connected by a streak with the postmedial band which is dilated below costa, oblique to beyond lower angle of cell and angled inwards in submedian fold; a subterminal series of slight black marks, excurved below vein 7 and at middle and incurved at discal and submedian folds; a white spot on termen in submedian interspace. Hind wing white, the terminal area suffused with brown; an indistinct sinuous postmedial line; cilia white with a brownish line through them; the underside with the costal area and terminal area to vein 2 irrorated with brown, a discoidal point and maculate postmedial line excurved to vein 3, then incurved.

Hab. Japan, Yokohama (*Pryer*), 1 ♀ type; W. China, Shen-se, Sinling (*Maw*), 1 ♀. *Exp.* 34–36 millim.

Genus **PTYOPTEROTA**.

Type.

Ptyopterota, Hmpsn. Moths Ind. ii. p. 75 (1894)..... *obscura*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and moderately scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male ciliated; thorax clothed almost entirely with scales and without distinct crests; tibiæ moderately fringed with hair, the spurs long; abdomen with dorsal crest at base only, the claspers of male elongate. Fore wing with the apex rounded, the termen evenly curved and not crenulate; vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell; male with a fringe of long scales on underside on subcostal nervure from base to end of cell. Hind wing with veins 3 and 5 from angle of cell, 4 absent; 6, 7 shortly stalked; 8 anastomosing with the cell near base only.

*5848 *a*. **Ptyopterota obscura.**

Ptyopterota obscura, Hmpsn. Moths Ind. ii. p. 75 (1894).

♂. Head, thorax, and abdomen brownish ochreous, the genital tuft whitish. Fore wing brownish ochreous; a dark point at base; antemedial line blackish, oblique from costa to median nervure and with blackish spot before it above inner margin; a

sinuous medial line from costa to below the cell; a small black discoidal spot; postmedial line indistinctly double, oblique and

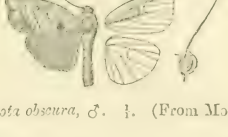

Fig. 213.—*Ptyoptera? obscura*, ♂. ½. (From Moths Ind. ii. p. 76.)

filled in with whitish below vein 4; a diffused maculate subterminal fuscous band, obsolescent towards costa; a slight dark mark on termen at discal fold. Hind wing pale fuscous brown.

Hab. Burma; Tenasserim (*Doherty*), type ♀ ♂ in Coll. Druce. *Exp.* 20 millim.

Genus METÆMENE, nov.

Type, *M. atrigutta*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head and slenderly scaled, the 3rd short and porrect; frons with transverse ridge-like prominence; eyes large, round; ocelli present; antennæ of male ciliated; thorax clothed with hair and scales mixed and without crests; tibiæ smoothly scaled; abdomen without crests. Fore wing rather narrow, the apex rounded, the termen obliquely curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from below upper angle; 9 and 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 stalked; 5 nearly fully developed from well above angle; 6, 7 strongly stalked; 8 anastomosing with the cell near base only; retinaculum of male in the form of a small corneous bar.

A. Fore wing with spot beyond the cell above vein 6; hind wing with series of spots on the cilia ..... *atropunctata.*
B. Fore wing without spot beyond the cell above vein 6; hind wing without series of spots on the cilia ..... *atrigutta.*

*5960 *a*. Metæmene atropunctata.

Cidaria atropunctata, Pag. Semon's Reise, Lep. p. 220, pl. 13. f. 1 (1895).
Æolosia alba, Snell. Tijd. v. Ent. xlvii. p. 155, pl. 11. f. 2 (1904).

Head, thorax, and abdomen grey. Fore wing grey; a series of small black spots on costa; an antemedial spot in submedian fold; rather obliquely placed spots beyond the cell above vein 6 and in discal fold, postmedial spots above and below vein 1; cilia white with a series of black spots. Hind wing grey; a discoidal black point and point in discal fold beyond the cell; cilia white with a series of six black spots from apex to vein 2.

Ab. 1. *alba*. Head, thorax, abdomen, and wings white; fore wing with some rufous suffusion in submedian interspace on postmedial area, the costal spots reduced to subbasal and antemedial spots and six spots on terminal half, the spots on cilia to

five; hind wing without the spots at and beyond end of cell, the spots on cilia reduced to five; the cilia tinged with rufous at tornus.

Hab. Java, Buitenzorg, Gedeh, Preanger, Rembang, Tonban, Tjibodas. *Exp.* 26–30 millim. This species is unknown to me.

5960 *b*. Metæmene atrigutta.

Lyclene atrigutta, Wlk. Journ. Linn. Soc., Zool. vi. p. 116 (1862); Kirby, Cat. Lep. Het. p. 367.
Æmene niasica, Pag. Jahrb. Nass. Ver. xxxviii. p. 25, pl. 1. f. 7 (1885); Kirby, Cat. Lep. Het. p. 367.
Siccia maculata, Leech, P. Z. S. 1888, p. 605, pl. 30. f. 16 (1889); Kirby, Cat. Lep. Het. p. 368.

Head and thorax white tinged with pale rufous; pectus, legs, and abdomen pale rufous. Fore wing white; a pale rufous patch at base of inner area, the median area pale rufous interrupted by white in submedian fold, the postmedial area with patches of pale rufous below costa, at middle and on inner area, the terminal area with a pale rufous patch at discal fold; a subbasal black point on costa; an antemedial point on costa and small spot in submedian

Fig. 214.—*Metæmene atrigutta*, ♂. ⅔.

fold; postmedial points on costa and inner margin and round spots in discal and submedian folds forming a curved series; the apical part of costa with rufous points; some black points on termen below apex and black spots on termen and cilia at apex, discal fold and vein 2. Hind wing pale rufous.

Ab. 1. Fore wing with the ground-colour entirely white.

Ab. 2. Fore wing with the white area reduced to bands dilated into patches round the black spots and connected in discal and submedian fold, the points on costa towards apex black.

Ab. 3. Fore wing with the white markings reduced to slight annuli round the spots and a fine dentate subterminal line angled inwards at discal and submedian folds and outward at vein 4.

Ab. 4. *maculata*. Fore wing with hardly a trace of the pale annuli, the ante- and postmedial black spots larger.

Hab. Japan, Satsuma (*Leech*), 1 ♀ type *maculata*; Nicobars, (*Rogers*), 6 ♂, 5 ♀; Straits Settlements, Selangor, Semangho (*Robinson*), 1 ♀; Singapore, (*Ridley*), 2 ♂, 3 ♀; Borneo, Sarawak (*Wallace, Doherty, Shelford*), 1 ♂, 2 ♀; Pulo Laut (*Doherty*), 2 ♂, 5 ♀; Nias I.; Java, Arjuno (*Doherty*), 2 ♂; New Guinea, Milne Bay (*Meek*), 1 ♀, *Exp.* 18–22 millim.

SPECIES OMITTED.

Aconthia miegii, Mab. Le Nat. ii. p. 134 (1832) .. Madagascar.
Acontia antecedens, Wlk. Char. Undescr. Het. p. 38 (1869). Type lost ..... Hab. ign.
„ *antica*, Wlk. Char. Undescr. Het. p. 37 (1869); nec Wlk. 1872. Type lost ..... Hab. ign.
„ *biskrensis*, Oberth. Bull. Soc. Ent. Fr. 1887, p. 58; id. Ét. Ent. xii. p. 31, pl. 5. f. 17; Staud. Cat. Lep. pal. p. 225 ..... Algeria.
„ *costistigma*, Wlk. xii. 792 (1857). Type lost.. N. India.
„ *cuprina*, Wlk. Journ. Linn. Soc., Zool. vii. p. 51 (1864). Type lost ..... Borneo.
„ *cyanipha*, Lower, Pr. Linn. Soc. N. S. W. xxii. p. 16 (1897) ..... N. S. Wales.
„ *decisa*, Wlk. xii. 787 (1857). Type lost ..... Brazil.
„ *inexacta*, Wlk. Entom. v. p. 130 (1870). Type lost. Arabia.
„ *mixta*, Möschl. Abh. Senck. Ges. xvi. p. 154 (1890). Porto Rico.
„ *partita*, Wlk. Entom. v. p. 130 (1870). Type lost . Arabia.
„ *polychroma*, Wlk. Char. Undescr. Het. p. 37 (1869). Type lost ..... Hab. ign.
„ *quadrata*, Wlk. xxxv. 1963 (1866). Type lost.. Brazil.
„ *stumpffi*, Saalm. Lep. Madag. p. 331 (1891) . Madagascar.
„ *trimacula*, Saalm. Lep. Madag. p. 335 (1891) . Madagascar.
„ *unipunctata*, Möschl. Abh. Senck. Ges. xvi. p. 155 (1893). Porto Rico.
„ *venusta*, Berg, An. Soc. Argent. xiv. p. 283 (1882). Argentina.
Agrophila velata, Streck. Lep. Rhop. & Het. Suppl. i. p. 9 (1898); Dyar. Cat. Lep. N. Am. p. 150 .... Texas.
Amyna aurea, Lucas, Pr. Roy. Soc. Queensl. xiii. p. 72 (1898). Queensland.
Anatrinoma affabilis, Möschl. Abh. Senck. Ges. xvi. p. 179, t. 14 (1890). ? *Cobubatha* ..... Porto Rico.
Anthophila amabilis, Saalm. Lep. Madag. p. 369, f. 249 (1891). ? *Carea* ..... Madagascar.
„ *augusta*, Guen. Maillard's Réunion, Lép. p. 38 (1863). Réunion.
„ *dissecta*, Saalm. Lep. Madag. p. 357 (1891). Madagascar.
„ *fasciola*, Saalm. Lep. Madag. p. 360 (1891). ? *Ozarba*. Madagascar.
„ *subolivalis*, Mab. Ann. Soc. Ent. Belg. xxxvii. p. 60 (1893). ? *Farcadia* ..... Madagascar.
Bankia furcata, Wlk. xii. 811 (1857). Type lost .... Hab. ign.

Bombyx exigua, Fabr. Ent. Syst. 3, i. p. 462 (1793); *Erastrid* fide Aurivillius ..... W. Indies.
Bryophila iridescens, Feld. Reis. Nov. pl. 100. f. 13 (1874). Type lost. ? *Lithacodia* ..... Hab. ign.
„ *ocellata*, Saalm. Lep. Madag. p. 251, f. 251 (1891). ? *Eustrotia* ..... Madagascar.
Emmelia felina, Herr.-Schäff. Corresp.-blatt. zool.-min. Ver. Regensb. xxii. p. 151 (1868). ? *Spragueia* ..... Cuba.
„ *trigrídula*, Herr.-Schäff. Corresp.-blatt. zool.-min. Ver. Regensb. xxii. p. 151 (1868). ? *Spragueia* .. Cuba.
„ *variegata*, & ab. *ochracea*, Möschl. Abh. Senck. Nat. Ges. xvi. p. 156 (1890) ..... Porto Rico.
Epizeuxis nigellus, Streck. Lep. Rhop. & Het. Suppl. 3, p. 36 (1900); Dyar, Cat. Lep. N. Am. p. 240 = *Erastria immuna*, Smith, Ann. N.Y. Ac. Sci. xviii. p. 124 (1908). Pennsylvania; Illinois.
Erastria bryophiloides, Wlk. Char. Undescr. Het. p. 38 (1869). Type lost. ..... Hab. ign.
„ *delicatula*, Christ. Hor. Soc. Ent. Ross. xvii. p. 112 (1882); id. Rom. Mém. ii. p. 74, pl. 3. f. 10; Staud. Cat. Lep. pal. p. 230. ? *Eulocastra* near *quintana*. Armenia.
„ *humerata*, Smith, Ann. N.Y. Ac. Sci. xviii. p. 123 (1908). Pennsylvania.
„ *marginata*, Moore, P. Z. S. 1881, p. 372, pl. 37. f. 21; Hmpsn. Moths Ind. ii. p. 302 ..... Sikhim.
„ *martjanovi*, Tschetr. Rev. Russ. Ent. iv. p. 78 (1904). Siberia.
„ *matercula*, Saalm. Ber. Senck. Ges. 1880, p. 272; id. Lep. Madag. p. 344, f. 117 (1880) ..... Madagascar.
„ *melacheila*, Staud. Iris, viii. p. 299 (1895); id. Cat. Lep. pal. p. 230 ..... Asia Minor.
„ *minima*, Herr.-Schäff. Corresp.-blatt. zool.-min. Ver. Regensb. xxii. p. 152 (1868) .... Cuba.
„ *mollicula*, Græs. Berl. Ent. Zeit. xxxii. p. 368 (1888); Staud. Cat. Lep. pal. p. 231 .... E. Siberia.
„ *nubila*, Berg, An. Soc. Argent. xiv. p. 284 (1882). Argentina.
„ *opposita*, Saalm. Lep. Madag. p. 345, f. 255 (1891). Madagascar.
„ *panatela*, Smith, Psyche, xi. p. 60 (1904) .... Canada.
„ *puncticosta*, Smith, Ann. N.Y. Ac. Sci. xviii. p. 122 (1908). Pennsylvania.
„ *sagitta*, Saalm. Lep. Madag. p. 342, f. 246 (1891). Madagascar.
„ *suavis*, Saalm. Lep. Madag. p. 349 (1891) . . . Madagascar.
„ *umbrivaga*, Krul. Rev. Ent. Russ. vii. p. 11 (1907). Russia.
„ *varipalpis*, Wlk. xxxiii. 792 (1865). Type lost. . S. Africa.

Erastria virescens, Saalm. Lep. Madag. p. 339, f. 239 (1891). Madagascar.

Eublemma loxotoma, Turner, Pr. Linn. Soc. N. S. W. xxxiv. p. 352 (1909) ..... Queensland.

Euphasia compta, Wlk. Entom. v. p. 130 (1870) Type lost. Mt. Sinai.

Eustrotia crystallina, Lower, Pr. Linn. Soc. N. S. W. xxiv. p. 88 (1899) ..... Queensland.

„ *distincta*, Grote, Papilio, ii. p. 184 (1882); Smith, Cat. Noct. N. Am. p. 311 ..... Arizona.

„ *fausta*, Druce, Biol. Centr.-Am., Het. i. p. 312, pl. 29. f. 8 (1889). ? *Pyrale* gen. *Tosale* ..... Panama.

„ *girba*, Druce, Biol. Centr.-Am., Het. i. p. 312, pl. 29. f. 7 (1889). ? *Cobubatha* ..... Panama.

„ *glycera*, Druce, Biol. Centr.-Am., Het. i. p. 382, pl. 29. f. 4 (1889) ..... Panama.

Metachrostis megalena, Mab. Ann. Soc. Ent. Fr. 1899, p. 730. W. Africa.

„ *robusta*, Saalm. Lep. Madag. p. 353 (1891). ? = *Eublemma snelleni* ..... Madagascar.

Micra marginula, Herr.-Schäff. Eur. Schmett. ii. p. 439, Noct. f. 560 (1845); Staud. Cat. Lep. pal. p. 228. ? *Pyrale*, *Phycitinæ* ..... Cyprus, Asia Minor.

„ *partita*, Wlk. xxxiii. 799 (1865) Type lost .... Java.

„ *recta*, Guen. Noct. ii. p. 245 (1852). ? near *Eublemma ragusana* ..... S. Leone.

Selenis affabrata, Saalm. Lep. Madag. p. 480, f. 148 (1881). ? *Lophoruza* ..... Madagascar.

Taraehe micrastis, Lower, Tr. R. Soc. S. Austr. xxvii. p. 23 (1903). Australia.

Thalpochares albipectus, Möschl. Abh. Senck. Ges. xvi. p. 167. (1890). ? *Cobubatha* ..... Porto Rico.

„ *basalis*, Möschl. Abh. Senck. Ges. xvi. p. 169 (1890). ? *Cobubatha* ..... Porto Rico.

„ *caduca*, Christ. Iris, vi. p. 93 (1893); Staud. Cat. Lep. pal. p. 227. ? *Eublemma* ..... Armenia.

„ *concinna*, Lucas, Trans. Nat. Hist. Soc. Queensl. i. p. 8 (1894) ..... Queensland.

„ *flammeola*, Lucas, Trans. Nat. Hist. Soc. Queensl. i. p. 6 (1894) ..... Queensland.

„ *grapholithoides*, Möschl. Abh. Senck. Ges. xvi. p. 167 (1890). ? *Cobubatha* .. Porto Rico; Colombia.

„ *ignifera*, Lucas, Trans. Nat. Hist. Soc. Queensl. i. p. 6 (1894) ..... Queensland.

„ *keyserlingi*, Bienert, Diss. p. 36 (1870); Staud. Cat. Lep. pal. p. 226 ..... Persia.

„ *lutosa*, Staud. Iris. iv. p. 320 (1891); id. Cat. Lep. pal. p. 229 = *T. substrigula*, Staud. Iris, iv. p. 321. (1891). ? *Eublemma* .... Asia Minor; Syria.

Thalpocharcs partitella, Mssn. Stübel's Reise, p. 147, pl. ix. f. 27 (1890). ? *Acronyctinæ*, gen. *Emarginea*.. Peru.
„ *putnami*, Möschl. Abh. Senck. Ges. xvi. p. 168 (1890). ? *Cobubatha*..... Porto Rico.
Troctoptera nymphula, Rebel, Verh. zool.-bot. Ges. Wien, 1909, p. 375, fig. ..... E. Siberia.
Xanthoptera cœnogramma, Mab. Ann. Soc. Ent. Fr. 1899, p. 730. Madagascar

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